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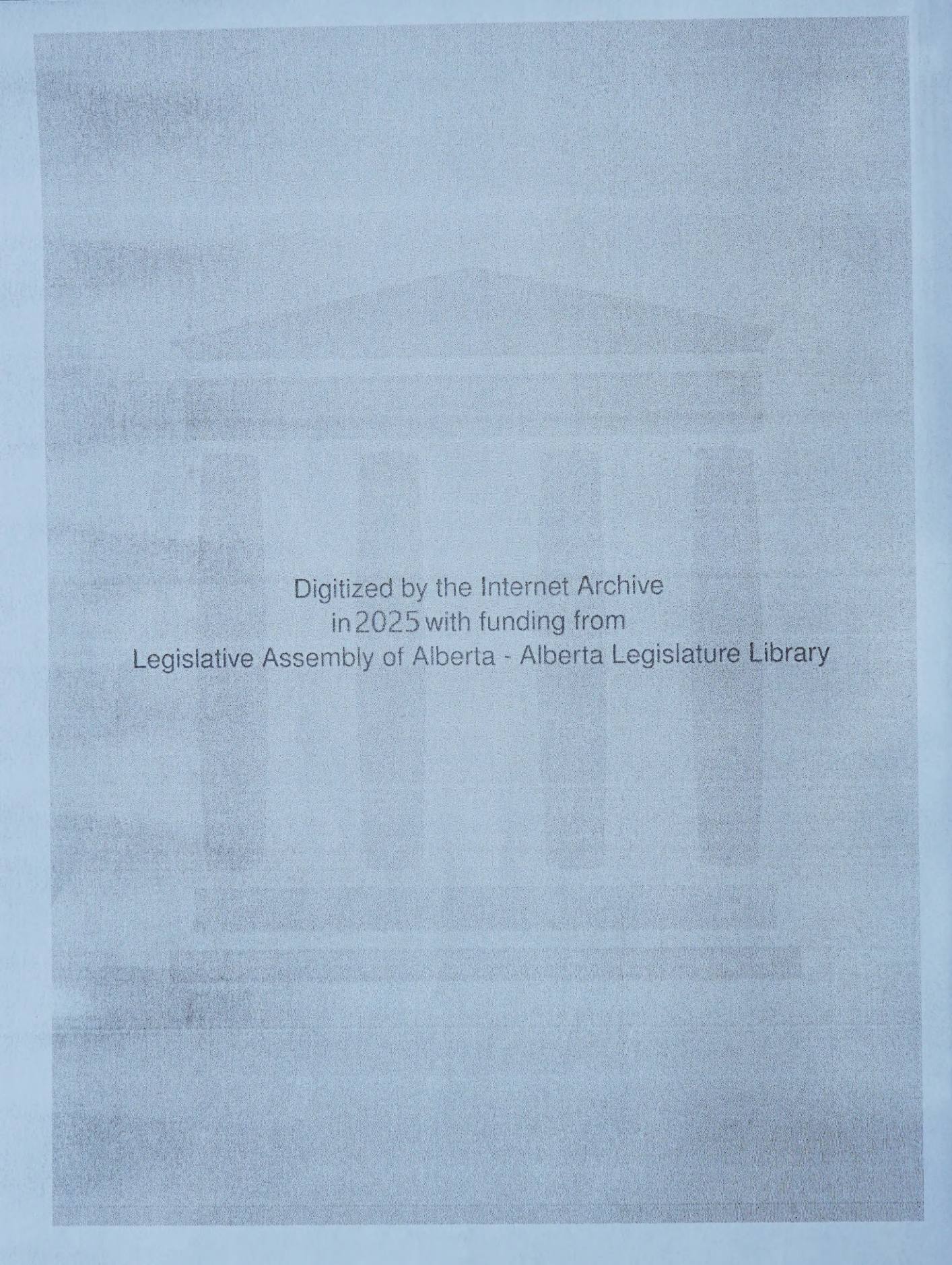


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Review of progress between
December 1969 and December 1970,
by L. Apedaile, V. Matthews and L.
Stewin.

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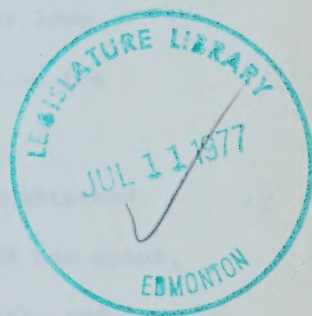


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REVIEW OF PROGRESS BETWEEN DECEMBER 1969 and DECEMBER 1970¹

Leonard Apedaile, Victor Matthews, and Leonard Stewin²

December 14, 1970



¹ The research for this paper is under University of Alberta contract number 55-08037 with the Alberta Human Resource Development Authority.

² Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, Victor Matthews is assistant professor, Department of Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

Annual Review

The last meeting with the Advisory committee was January 30, 1970. Since that time work has continued on the development of an evaluation system and various special aspects of the CD 14 program. The research team has gained Dr. Leonard Stewin of the Department of Educational Psychology in exchange for Dr. Jack Bicknell who has joined the staff of a University in Buffalo. The team continues to meet more or less frequently according to their availability, and stages of work on the evaluation.

A statement of disbursements on the research account is attached. Over the 12 month period following December 1, 1969, \$10,085.68 was spent, \$7,237.62 for wages, salaries, and honouraria, \$686.49 on travel, and \$278.59 on materials and supplies. University overhead was charged at the rate of 10% of expenditures, and the Department of Agricultural Economics charged \$966.10 for clerical and technician services. Beginning in April 1971 the University will begin to charge for computer use. No estimate of the impact on the research budget has been estimated. There may be an opportunity to waive charges against already funded projects. Otherwise some stress could occur.

At this meeting we are presenting a number of reports. They are:

An Evaluation System for Development

Action, Agencies, Advocacy and Analysis

The Achievement Motivation Subsystem - Interim Report

Evaluation of the Lions Tourist Reception Centre

Estimation of Income Multipliers

Expenditure of ARDA Funds 1967-70 Interim Report

A Model of Societal Development: Some Ideas

Impact of the Silver Summit Ski Resort on Edson and Environs

Home Visitor Project - Attitudinal Considerations and Performance
- Interim Report

Edson School Survey. Preliminary and Partial Report

Policy Recommendations

The other work in progress includes:

Review of the Impact of Farm Adjustment

Achievement Motivation in the Education and Upgrading Project

Unemployment, Employment and Underemployment

Farm Status

Income Distributions

Appraisal of Institutional and Administrative Structure Behind
the Program

Several new thrusts are planned for the next six to eight months.

Measurement of Social Change Resulting from the ARDA Program,

Particularly in Rural Areas

Integration of Evaluation Subsystems

Assessment of Exogenous Influences on the Region Over the Period
1965-1971

Evaluation of Farm Purchases and Family Relocation.

The balance of this report will be taken up with sketches of
ongoing work in terms of achievement, difficulties encountered and proposed
work.

Expenditure of AHA Funds 1955 to 1960

A Study of Federal Expenditure, 1955-1960

Report of the Office of Management and Organization

How Visionary Project - Educational Institutions and Research

Interim Report

Human School Survey, Technology and Social Change

Policy Recommendations

Work in progress, 1960-1961

Review of the Report on the Education

Developmental Institutions in the United States

Developmental Institutions in the United States

Final Report

Human Development

Approved as a National and International Survey

The Program

Several new theories are proposed for the study of the human

Measurement of Social Change, 1955-1960

Participation in Social Change

Measurement of Social Change, 1955-1960

Measurement of Social Change, 1955-1960

1955-1960

Measurement of Social Change, 1955-1960

The balance of this report will be taken as with reference to

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Farm Adjustment

The Farm Adjustment Committee considered in the two years of 1969 and 1970, 444 applications for farm sale, 109 applications for land clearing, in addition to applications for farm purchase, grazing leases and permits, exchange, cultivation leases and permits, and other miscellaneous applications. The evaluation has so far concerned itself with sales of crown land for farm enlargement. The main objective of such sales is to foster viable economic farm units.

A random sample of approved and denied applicants was selected as a basis for interviews. The interviews were designed to provide an appraisal of changes in resource use between 1969 and 1970. The gross income and net income situations for 1970 were assessed and compared with family living expenditures to provide documentation of levels of living for comparison with Alberta and national norms. The questionnaires are still coming in.

Difficulties encountered by the survey are few. Several farmers were away working which caused some delay. The early snow and a blizzard during the survey made travel difficult. Most difficulties with farmer response were avoided through the very excellent and patient guidance of Airie Struick, land technician with the HRDA office in Edson.

The analysis of the interviews will continue. Future plans include a review of decision making by the Farm Adjustment Committee, and an appraisal of the land clearing project.

Achievement Motivation and Education Upgrading

The instrumentation described in the interim report on Achievement

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Motivation presented at this meeting, will be modified after the January test in Edson. Then all the people now resident in Edmonton and elsewhere who have received assistance for skill training and upgrading will be tested. The results will be compared as far as possible with other tests obtained at the time of application for assistance. The result should be a useful instrument for before and after testing of trainees in future development programs.

Unemployment, Employment, and Underemployment

Work on this subsystem of the evaluation has not proceeded as rapidly as would have been hoped. The only major difficulty is the preservation of time series of unemployment insurance benefits to CD 14 residents. Since their records have been computerized, the identity of residence for beneficiaries has been lost. Negotiations have progressed satisfactorily with the unemployment insurance commission.

Underemployment on farms has been documented by the 1969 survey of farmers. The main difficulty lies in the representativeness of the data. It is planned to clean up this part of the subsystem over the next six months.

Farm Status

The survey on the status of farms in CD 14 was largely unsuccessful. At least \$2,500 was spent and the lack of consistent response has made analysis with the aid of a computer near impossible. The size of the project also makes manual analysis nearly impossible. At present we have about 240 completed questionnaires. The issue at hand is the degree of sample bias in the data. A test for bias would require several weeks of manual work. However the testing is planned so that, if at all possible,

some inferences on psychological patterns, attitudes toward ARDA, and farm income may be made.

Income Distributions

The first study of income distributions was based on a mail survey of incomes in CD 14 for 1966, 1967 and 1968. This study has been reported to the advisory committee. Further analysis and development of measurement techniques have proceeded since that meeting. A new survey is planned within the first three months of 1971 to obtain income information for 1968, 1969, and 1970. A report using the updated analysis should be forthcoming within the year.

Appraisal of Institutional and Administrative Structure Behind the CD 14 Program

In November of 1969 a study of the Edson staff was made and reported at the January 30, 1970 advisory meeting. At the December 5, 1969 meeting, schedule A of the University contract was discussed. In the minutes mention is made of an appraisal of the cooperation of government departments, the effectiveness of Alberta ARDA, and the effectiveness of Edson ARDA staff. Presently the research team is designing three instruments to perform this appraisal. The first is personal interviews using an established questionnaire to ascertain the degree of involvement, and knowledge in and of the program, and opinion on performance or lack thereof within the administration. The second instrument is a package of tests to estimate the ability to make decisions of varying complexity. The third instrument is an analysis of social order and structure of the administration. All government personnel who were, in 1968, a part of

the interdepartmental development effort are to be included in the appraisal.

The work has stopped because Mr. Oberholtzer, Dr. Ballantyne, and Mr. Speaker do not wish the study to be completed. They claim it is not part of the terms of reference of the contract. This is a serious issue because of the implications of the refusal. The effectiveness of an administrative structure determines, to a large extent, the effectiveness of public regional development programs. We hope the advisory committee can help overcome this impasse.

HRDA - PROJECT 08037

DISBURSEMENTS

From December 1, 1969 to December 1, 1970

Overhead (Clerical)		
Department of Agricultural Economics	\$ 966.10	\$ 966.10
Administration Fee	\$ 916.88	\$ 916.88

Salaries and Wages:

V. Matthews	\$1,000.00	
Various Assistants	\$ 221.34	
L. Apedaile	\$1,068.90	
Martha Somers	\$ 534.37	
John Kish	\$1,383.90	
Mary Snyder	\$1,485.04	
J. Bicknell	\$ 700.00	
V. Goodale	\$ 344.07	
B. McKearney	\$ 500.00	\$ 7,237.62

Travel:

V. Matthews	\$ 62.85	
Martha Somers	\$ 36.00	
L. Apedaile	\$ 94.80	
John Kish	\$ 62.15	
Mary Snyder	\$ 60.00	
Vehicle Pool and Garage	\$ 370.69	\$ 686.49

Materials and Supplies:

Duplicating and Printing	\$ 39.29	
Telephone	\$ 61.17	
Miscellaneous	\$ 178.13	\$ 278.59

TOTAL....	\$10,085.68
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AN EVALUATION SYSTEM FOR DEVELOPMENT¹

Victor Matthews, Leonard Apedaile and Leonard Stewin²

December 9, 1970

¹ The research for this paper is under University of Alberta contract number 55-08034 with the Alberta Human Resource Development Authority.

² Victor Matthews is assistant professor, Department of Sociology, Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

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Introduction

One of the major problems in considering economic and social development is the dynamic nature of boundary conditions, namely, economic, sociological, political and technical conditions. Regardless of the form deliberate intervention may take, it must be adaptive to changes within the boundary conditions. If development is desirable and if attempts to achieve development are made at some cost to society, the relative success of intervention must be ascertained. The purpose of this paper, then, is to suggest an evaluative system for measuring the effectiveness of developmental programs.

Public intervention into economic and social systems may vary from nonsupervised revenue transfers for regulating incentives to a complete caretaker management of all social and economic activities. Regardless of the nature of public intervention, the various implications and effects of intervening must be known. This knowledge provides a basis for modification and improvement of developmental effects. To provide such a basis, any evaluation system must meet eight objectives.

Objectives of an Evaluation System

The first objective is to provide documented informational feedback into the developmental process. The implicit assumption behind this objective is that a conscious, comprehensive, goal-oriented process is at work with matching characteristics in the intervention. This approach is the opposite of disjointed incrementalism in which unquestionably important consequences to alternative policies are simply ignored (Hirschman and Linblom, 1962). This objective is important because of the tendency of developmental programs toward disjointed incrementalism in which slogans, rumors, shibboleths, and unanalysable preconceptions endanger the future economic and

social well-being of people. Only by examining economic and social change, as well as the quantifiable attitudes of the persons influenced by the intervention, can the relative success or failure of the developmental program be assessed.

The second objective is closely tied to the first in that feedback concerning the effectiveness of public intervention must be formulated using objective, data-based evidence. Typically, intervention results from a stream of decisions emitted over time from several levels of government and from many autonomous governmental agencies. Information feedback arriving after decisions have been made provides interesting, if sometimes shocking, reading. The third objective, then, is to provide timely information to those organizations responsible for decisions in the intervention process. The fourth objective suggests that feedback information be expressed in forms that are meaningful to the various decision makers.

Public intervention generally takes the form of facilitative action to stimulate the private sector. Apart from compensations for economic and social loss and ethically motivated infrastructure building, investment decisions are the focal point of public programs. The gestation periods before payoffs become measurable and the characteristically long payoff stream both delay full knowledge and appreciation of the wisdom of an investment. The fifth objective is to develop measures that are sufficiently sensitive to changes within the gestation period to enable adequate prediction of the payoff.

Among the first decisions in intervention is the identification of the region to which special legislative provisions will apply. Despite an array of established regional boundaries, such as municipal districts, counties, improvement districts, census divisions, and agricultural

reporting areas, a new area which crosses these more traditional boundaries is generally selected. Surveys, enumerations and opinion samples, all of which are part of a planning input, follow the process of area selection. By the time evaluation data needs are established, the secondary data sources have been invalidated by boundary definitions and residents have been surveyed to the point of hostility (Matthews and Apedaile, 1970). The sixth objective, therefore, is to minimize data needs subject to conditions of statistical reliability.

Data collection and statistical analysis imply that once a framework has been established, the evaluation system can be carried out in a quasi-clerical manner and in more than one intervention region. If a new evaluation system had to be designed for every intervention, political patience and funding would expire before evaluation feedback could begin. The design of a transferable evaluation system can be considered as an investment in a reproducible product in which the variable recurrent cost would be minimal. Consequently, the seventh objective is that the evaluation system be transferable from intervention to intervention. The final objective prescribes that the system be routinized so that a minimum of expertise is required to attain the prior objectives.

Eight objectives setting standards for evaluation systems have been outlined. They are in review:

1. To provide documented informational feedback into the developmental process.
2. To provide objective, data-based evidence as a foundation for the feedback.
3. To provide timely information to those organizations responsible for decisions in the intervention process.

4. To provide this information in a meaningful form to the various decision makers.

5. To provide development measures which are sufficiently sensitive to changes within the gestation period to enable adequate prediction of the payoff.

6. To minimize data needs subject to conditions of statistical reliability.

7. To provide for transferability of the system from intervention to intervention.

8. To be routine in the application of the system so that a minimum of expertise is required to attain the prior objectives.

These objectives suggest that a nonstatistical, descriptive approach to evaluation is inadvisable. Similarly, an elaborate model featuring simultaneous equations or allied multivariate treatment may not be successful. Keeping these objectives in mind, the following proposal for an evaluation system is offered.

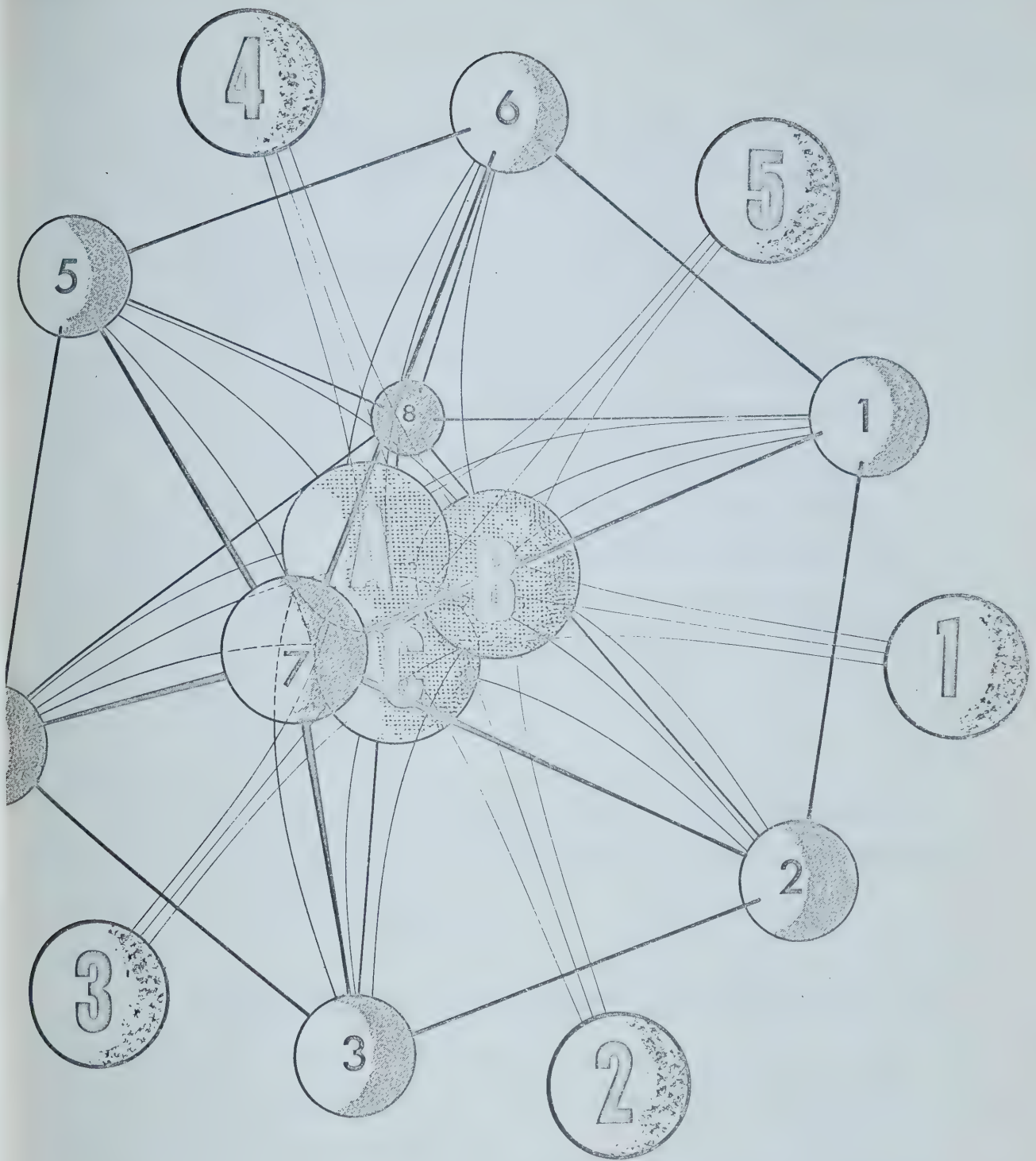
An Evaluation System

The evaluation system must be seen as a distribution of elements within a dimensional domain (Angyal, 1941). Common or usual dimensions are time and space. In regional development programs, other dimensions include income, employment, social consciousness and perceived personal power. The relative positions of these elements within the system indicate an underlying structure which is basic to understanding the system; that is, a given system is more than an aggregate of elements bound together by paired relationships. For example, Buckley (1968:xxiv) states that within a complex system "the parts come to take on properties that they owe specifically to being components of a larger whole."

The structure of a system, however, may be examined through consideration of members in direct juxtapositions. Figure 1 is a schematic diagram of the evaluation system. The analysis of the juxtapositioning of relata belongs to the process of "explanation," as opposed to that of "understanding." Causal analysis, in which a given effect has a particular cause, is based on relational thinking. Indeed, even a complex causal relationship may be considered in terms of a two-member relationship.¹ The analytical task is to select pairs of facts based upon identity, diversity, and similarity from among a multitude of data. The proposed evaluation system assumes that these relationships are system subtypes and may be utilized for a logical presentation of specialized subsystems.

Logically, the taxonomic approach is potentially useful to systems thinking. The greatest danger is that pairwise relationships will dominate the analysis. Taxonomically speaking, the subsystems may be conceived of as self-contained relationships involving an effect--developmental success--and a cause--developmental program. Conversely, the subsystems may be connections of development success criteria, connections of environment factors exogenous to the intervention and connections of causal factors endogenous to the intervention. For the evaluation system presently being considered, a taxonomy which differentiates subsystems according to a success criterion is preferred. Within this taxonomy, each subsystem includes a multiplicity of factors endogenous and exogenous to the system, and the subsystem analysis should determine the organization of these factors both with respect to each other and to the success criterion. Each subsystem has linkages through the dimensional domain into the other subsystems.

¹ Relational thinking is the basis for study of causation in which for an effect a, there must exist cause b.



A, B, C, Criteria variables (CV), Income, Employment, Achievement motivation, social power, and other explanatory factors

Inner group of spheres represent regional endogenous economic, social and psychological factors, the social action process, ARDA projects, endogenous government, and local private investment.

Outer group of spheres represent regional exogenous factors. government policy, foreign markets, and random elements.

Figure 1. Schematic Representation of the Evaluation System for Regional Development Programs.

For example, suppose two subsystems of two elements each, giving a total of four elements. The two success criteria for the subsystems are societal achievement motivation and gross regional product (GRP). In the first subsystem, intervention may take the form of social animation; in the second, recreational investment may be utilized. The linkage between these subsystems may be the time dimension; that is, a recreational investment with the same time coordinate as a phase of social animation could have a reinforcing impact on achievement motivation within the region for reasons suggested by social psychology. Similarly, the linkage through time coordinates could also have a reverse impact in that social animation work could influence investment expectations through other elements in the GRP subsystem. Linkages in this framework are analogous to side effects in the Tinbergen-type policy framework (1956).

The Phases

If it is assumed that the success criteria identifying the subsystems have been suitably defined, the task of an evaluation system may be summarized in terms of the following phases:

Phase I

1. Obtain statistically unbiased measures or estimates of the variable(s) comprising the success criteria.
2. Obtain comparison bases for the criteria variables by rotating their time and/or space dimensions.
3. Document the congruity or incongruity of the criteria measures through the dimensional domains.
4. Infer statistical relevance to the congruity.

Phase II

1. Establish the dimensional domain for the factors exogenous to the intervention.
2. Establish the dimensional domain for the factors endogenous to the intervention.
3. Rank all factors in descending order of their pair-wise relationship to the criteria variables according to an aprioristic estimate of the probable intensity of causality.
4. Select a probability threshold (although arbitrary, it should be at least 50 percent) and document the actual relationships with aprioristic probabilities greater than this threshold.
5. Specify documentable linkages through time, space or other dimensions with other subsystems in terms of the secondary impact on the criteria variables vis-a-vis a particular subsystem.
6. Infer policy alternatives on the basis of documented and/or other validated causalities which are capable of producing desirable values for the criteria variables.
7. Separate the policy alternatives into relevant, existing jurisdictional domains as defined from outside the evaluation system.

These procedures follow standard scientific procedure in that, assuming an ergodic subsystem in the developmental process, the ultimate evaluative test is the opportunity to falsify the intervention. Within these phases, it is important to note that the success criteria may not be satisfied within the first phase in that causal relations implied by the intervention may be erroneous. In other cases, however, not only will a rigorous evaluation system document success, but it will also provide positive alternatives for improving intervention efforts as feedback into the intervention process.

Criteria Variables

The development of a region is a system-generating force which augments in an adaptive manner the capability of development to perpetuate itself (Emery, 1969). The overall criterion of success, therefore, is the measure of potential capability with respect to the goals of development. Not only must the goals be achieved, but the development system must be capable of maintaining that performance through future time periods. Therefore, in this context goal achievement cannot be considered a sufficient condition for success. However, regardless either of goals or of the need for the capacity for self-perpetuation, the evaluation system requires an analytical format as suggested in Phase I.

The number of criteria variables (CV) is initially kept small (a maximum of six) in order to minimize complexity and to facilitate component testing. The criteria variables must be defined qualitatively and should include those economic, social and psychological variables which contribute demonstrably to the success of developmental programs. There is a close link between the criteria variables and the targets and goals of the developmental plan. When the plan is specific and the targets appropriate and/or adequate, the criteria variables for evaluation purposes are normally given. If, however, the targets are too general or if they only partially represent the required considerations for a region, the criteria variables must be designated. Normally, the criteria variables and the planned targets are the variables that link the evaluation system to the developmental program. Because the selection of criteria variables makes the evaluation system relevant to any particular regional development program, the evaluation system may be generalized to many programs without ignoring the special nature of each program.

Once the criteria variables are identified, quantitative measures may be undertaken. At least two independent measures must be made, one in the time and space dimension relevant to the intervention program and the other in an independent time and space dimension as a basis for comparison. In this manner, a time series may be utilized to provide a dynamic rather than a static analysis. To minimize the required amount of data, both proxy variables and a variety of data sources must be utilized. If "D" is the volume of data, "x" is a proxy variable for "y" and "d" is the quantity of data required for each variable, then the sixth objective may be expressed as the minimization of the linear function for data requirements over all criteria variables in the following manner:

$$D(\min) = \sum_{i=1}^n \sum_{j=1}^{J'} d_{ij} Y_{ij} + \sum_{j=J'+1}^J d_{ij} x_{ij}$$

where

$$Y_{ij} = f(x_{ij}) \quad j = J - J'$$

$$P[(Y_{ij} - Y'_{ij}) \geq \alpha] = b \%$$

The subscripts and other notations are:

i = identification of the criteria variables,

j = identification of each quality of the criteria variables,

P = probability

Y'_{ij} = value of Y_{ij} in the base measurement,

α = least significant difference,

b = level of confidence.

The base measurement of estimates for the criteria variables (CV') provides an evaluative perspective. Although the estimates (CV') for the

nationa, province or region may not be strictly comparable, qualified comparisons should be made. The measurement of CV' within the evaluation system should be treated as an exogenous input into the subsystems.

The interrelationships of the criteria variables may be mathematically defined to provide indices for change in economic and social variables. These indices would summarize the qualities of the criteria variables. An illustration of one index would be the distribution of income level over geographic subareas and technical skills. Similarly, the various aspects of employment, power and ambition would constitute three indices. The final index would compile all criteria variables into one score of economic and social change (Figure 2).

Statistical analysis of the fourth step of Phase I is preferred, although determining the proper level of significance presents a problem. The large variance associated with economic and social variables suggests that confidence levels of 90 to 95 percent could only be achieved through an incongruency with the base values (CV') or large relative changes within the criteria variables themselves. The best approach would seem to be variation of the level of significance from 70 percent to 99 percent depending on the situation and the nature of the particular variable. Discretionary selection, based on a theoretical understanding of the variable in question, could offer a realistic way of dealing with variance disparity.

Factors Influencing Criteria Variables

In an open system such as a region, many forces may act upon the criteria variables. These forces include:

--the changing value system spread by the mass media

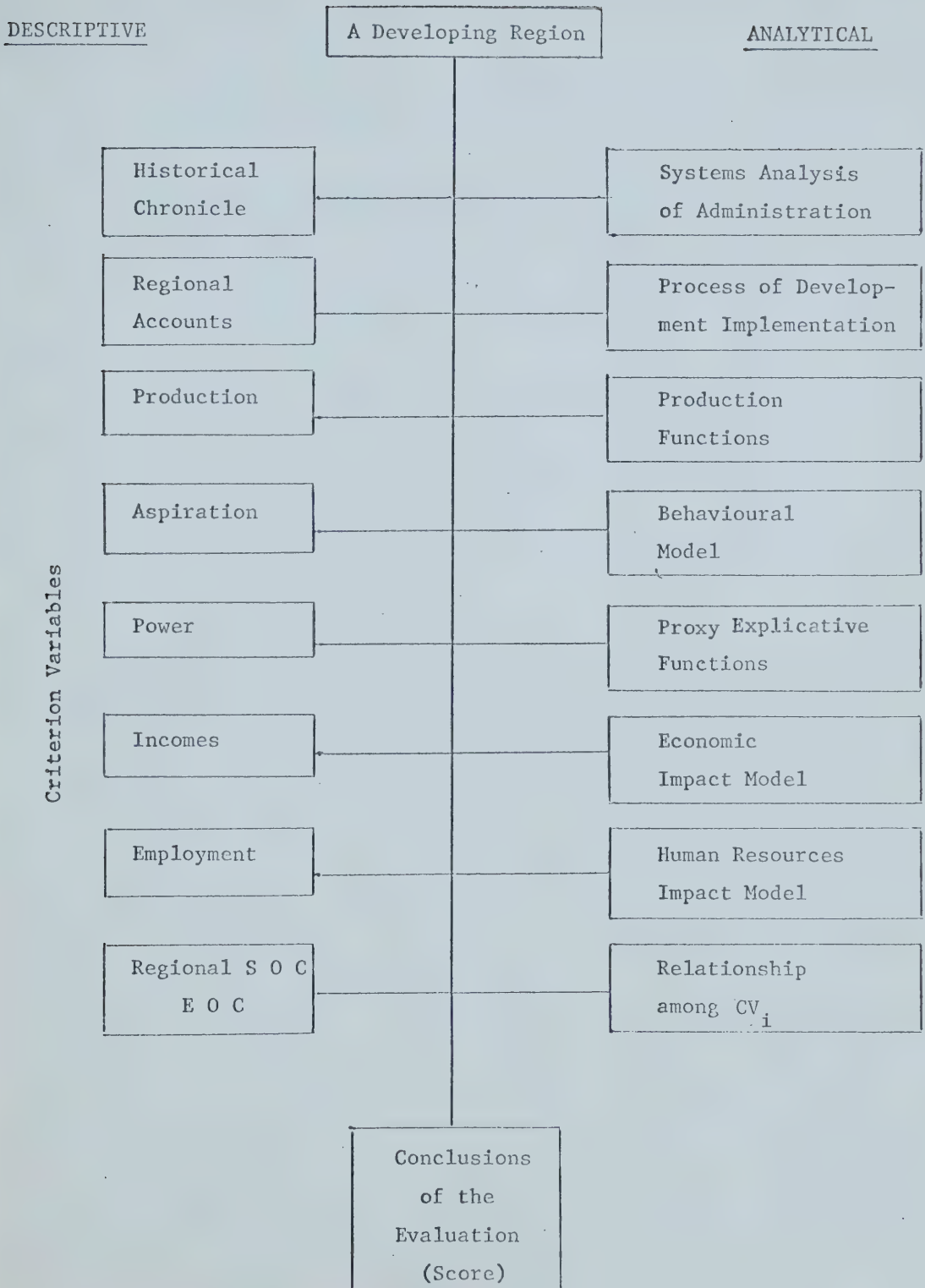


Figure 2. Descriptive and Analytical Components of the Evaluation System Categorized by Criterion Variables (CV) and Emphasizing the Possibility of Generating an Evaluation Score

--newcomers to the region holding influential positions within the structure of that region

--the importing of most consumer goods and exporting of regional products

--the importing of most technical innovations

--the external nature of governmental services

--the presence of a publicly financed development program within the region.

It is important that the evaluation system identify the unique contribution of the development program to observed changes in the criteria variables. This identification requires that the relative impact of other factors be controlled while the unique contribution of the developmental program is determined.

To attain this goal the "ideals approach" seems appropriate. With this approach all possible explicative factors (EF) are identified in Figure 3. They are classified as endogenous to the program, autonomous endogenous to the region, exogenous and random. Within each of these categories are a number of areas of influence requiring analysis resulting in suggestions for at least two levels of policy adjustment. As an operational strategy, a ranking in descending order of a priori importance of explicative ability should be made. The explicative factors (EF) are considered in the ranked order and examined to determine the manner by which each factor influences the criterion variables (CV). For example, suppose that there are only two ways for each of three factors to influence the criterion variables. Then, for the i^{th} criterion variable, the explicative expression is:

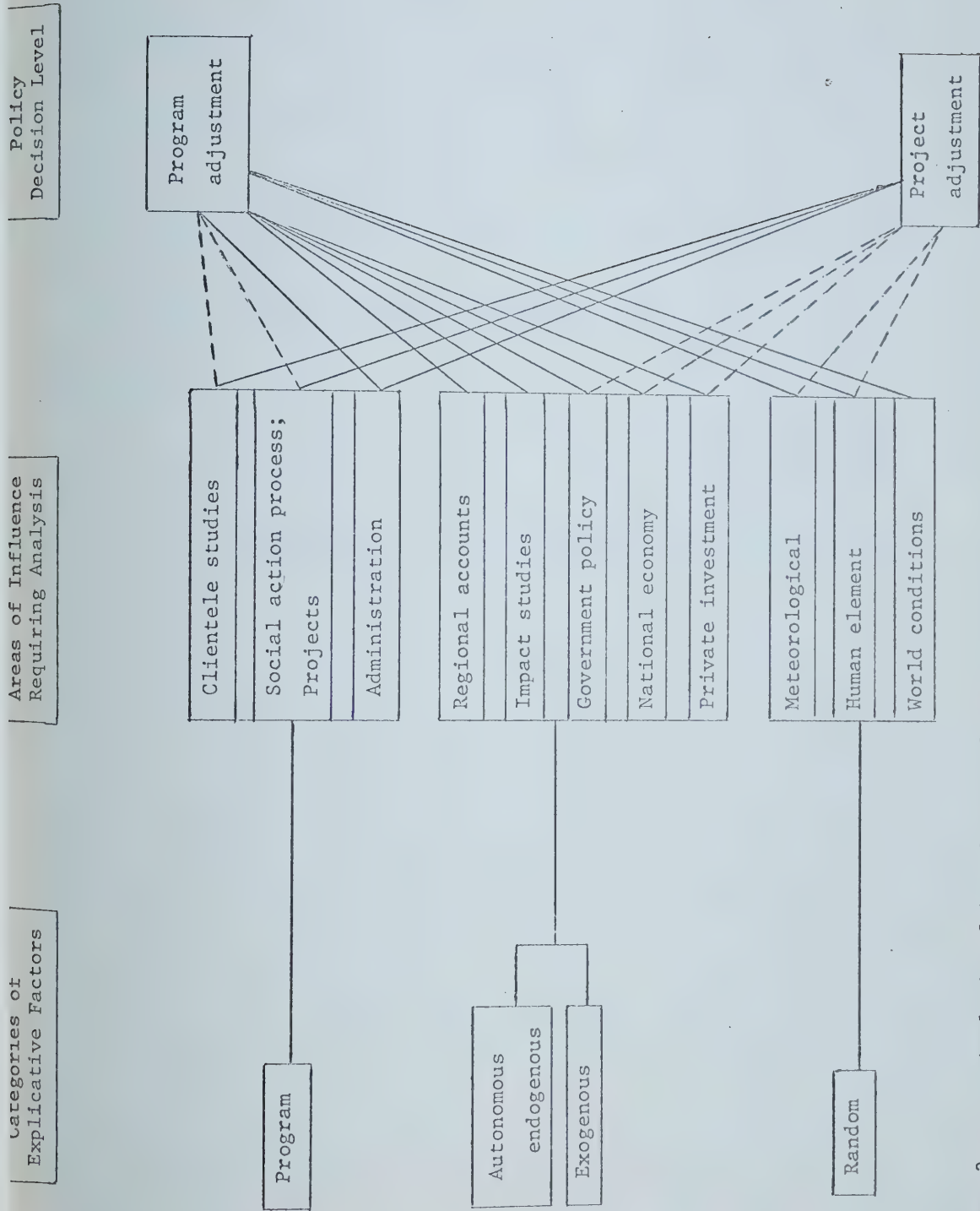


Figure 3 Analysis of Attribution of Regional Performance to Explicative Factors

$$CV_i = H_i[h_{i11}(EF_1), h_{i12}(EF_1), h_{i21}(EF_2), h_{i22}(EF_2), h_{i31}(EF_3), h_{i32}(EF_3)]$$

or, in general,

$$CV_i = H_i[h_{ijk}(EF_{ij})],$$

where

CV = the criterion variables

EF = the explicative factors

H = the functional operator defining the empirical nature of the whole subsystem

h = the function operator expressing the form in which the EF's enter the functional

and the subscripts are:

i = 1 through n, (n = 5 or 6) = number of criterion variables

j = 1 through m, (m = 3 or 4) = number of explicative factors

k = 1 through r, (r = 1, 2 or 3) = number of ways in which the j^{th} explicative factor may influence the i^{th} criterion variable.

The analysis of this function should allow for comparisons of the explicative factors (EF_{ij}) according to the function operators (h_{ijk}). Understanding the manner in which the explicative factors affect the criterion variables leads both to a re-ranking of the explicative factors and to a decision about the relative ability of particular factors to explain variation within the criterion variables. Making decisions about the relative ability of particular factors to explain variation in a causal (or even an explanatory) manner is currently a nebulous ability. Ideally, as in the case of fertilizer, animal nutrition or hail suppression, technical relationships having a low degree of probabilistic behavior exist. Economic, social and psychological relationships, even when well-known, are subject to the influence of explicative factors on criterion variables must be stated in probabilistic terms. Both the ways in which these types of probabilities

are calculated and the levels considered to be acceptable indications of influence are in need of considerable investigation.

Summary

The evaluation system is summarized in Figure 4. An operationally oriented flow chart, which may be compared to Figure 1, is shown. The systems nature of the evaluation is exposed to point out the connections of the procedural aspects of an evaluation using the proposed system. Of particular interest in Figure 4 are the diamond-shaped decision points and the anticipated genera of results. This step-by-step analytical procedure forms the basis for the routinizing and transferability of the system.

As in any analytical system, there is a degree of compulsion to this evaluation system. The rationale for this system is the multiple dimensions of regional development. Both the developmental program and the evaluative system must consider the same dimensions. The proposals presented in this paper define the scope of action, the priorities and the necessary type of analysis for an evaluation system for regional development. The purpose is to guide and integrate interdisciplinary research concerning developmental programs. Research should flow from this system into a broader and broader set of subsystems. The product must be a simple, workable evaluation system which conforms to the objectives outlined at the beginning of this paper.

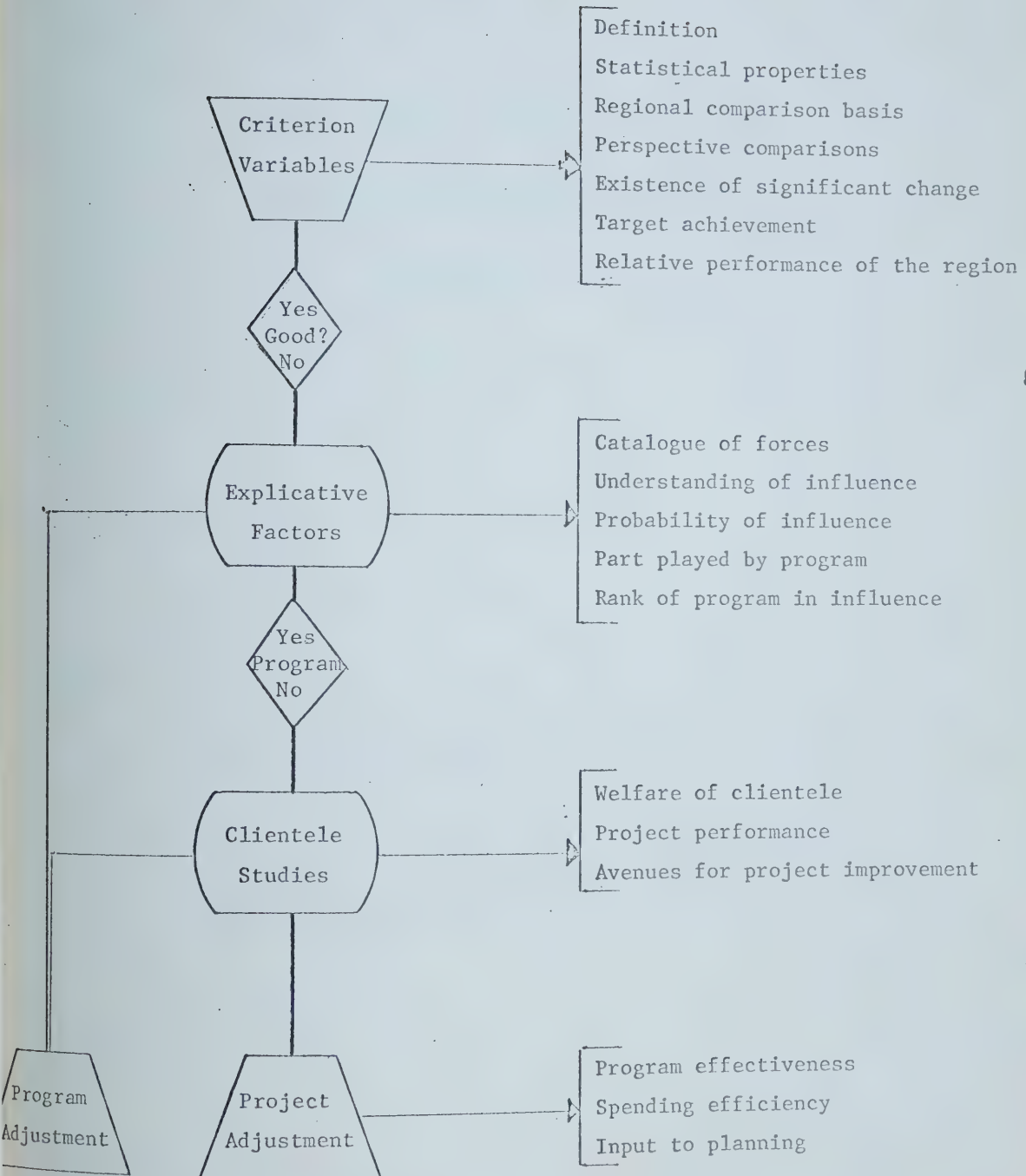
SYSTEMRESULTS

Figure 4. Connections of the Procedural Aspects of the Proposed Evaluation System

ACTION, AGENCIES, ADVOCACY AND ANALYSIS¹

Victor Matthews and Leonard Apedaile²

December 9, 1970

- 1 The research for this paper is under University of Alberta contract number 55-08037 with the Alberta Human Resource Development Authority.
- 2 Victor Matthews is assistant professor, Department of Sociology, and Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, University of Alberta.

Public intervention in the process of regional economic and social development has consistently been a subject of controversy with regard to orientation, means, goals and consequences. The researcher evaluating a regional development program of the social action type is confronted by three constraints which arise from his interaction with the social program and the operating agencies. The first constraint is the program "noise" generated by data collection from social and economic units within the region. The second is the lack of program precision, the feedback by program officials from evaluation procedure and recommendations for change. The third involves the researcher's own inner conflicts arising from his dual role as a scientist-evaluator and as a concerned citizen.

The focus of social action upon a given region generally rests on the assumption that the region has been defined as problematic and is in need of modification. When dealing with traditional social problems--alcoholism, drug abuse, racial strife, etc.--grounds for considering the phenomena to be a social problem are relatively concrete and are based upon a consensual and explicit rational (Davis, 1970; Horton and Leslie, 1965; Merton and Nesbit, 1966).

The selection of a region for a social action program, however, need not be based upon an explicit rationale, and the criteria by which such regions are selected are not usually consensual! The primary criterion for selection is that a group with power perceives the region as deviating from some norm and expects that the application of a social action program will induce conformity. Much fanfare generally accompanies the announcement of a social action program for a particular region; the region is defined as deviating from some expectation, thus requiring certain remedial actions.

A label is applied to the region in much the same manner as a label is applied to an individual. It appears (based upon observation by the writers) that in labeling a region deviant one implies the negation of the rights of that region in much the same way that this process affects individuals. For example, in discussing stigma, Goffman (1964:16) states that "the implication ... is that the stigmatized individual is a person who can be approached by strangers at will, providing only that they are sympathetic to the plight of persons of his kind."

It is because of this process of defining the region and of the gross data needs at the regional designation stage that social action areas are frequently overly researched and hostile to evaluators. These conditions occur when the requirement for specific reliable knowledge about the region is satisfied from sources within the region. It is well understood that social action programs depend upon the perceived needs of the region. Many different agencies participate in a social action program, and each agency needs to collect data relative to its unique interests. What is puzzling, however, is the ignoring of public records and documents (census data, employment information, income distributions, education records, etc.), the lack of coordination among agencies in the collection of information, and the almost paranoid hoarding of information once it has been collected (Herman, 1965). The evaluator who approaches such a region frequently finds a populus with definite attitudes toward participating in the data collection process, a populus to whom the evaluator's neutrality may not be sufficiently empathetic, but may rather be perceived as condescension. The nature of the first constraint in evaluative research is, in one word, hostility.

This hostility arises from two frequently interrelated sources: normlessness and governmental involvement. Normlessness occurs when residents of the community become aware that their manner of life is under consideration and is the focus of change but have no concrete reference point for that change. Frequent subjection to surveys which ask similar or identical questions contributes to normlessness. It is also fostered by the failure of their participation to be of any perceived value to either themselves or the social action program.

On the other hand, governmental involvement in social action programs generates hostility for the following reasons:

- (a) The rationale for a particular question, or the general justification for a survey, is frequently summed up as "government wants to know"; the government is treated as a nonrational entity that moves in mysterious ways to perform or fail to perform its tasks.
- (b) The community social action program becomes a political football, creating tension and division in the community.
- (c) Individuals may be opposed to the political party in power.
- (d) Individuals may resent governmental involvement in their social and economic lives.
- (e) A social action program imposed upon a community from the top causes resentment; the local people often have little or no say in whether or not the program is wanted. The program may thus be perceived as "prying" into private lives to an even greater extent than does the social action process.
- (f) Finally, the lower economic class members of the community--those to whom the social action program is primarily oriented--depend upon the government for support.

Providing false answers to questions and attempting to avoid giving any required information are hallmarks of this type of respondent. Attempting to collect data from such individuals is difficult. Either they will provide the "pat" and necessary answer to a question to avoid trouble with the

agencies involved, or they will view the attempt to collect data as "governmental prying" and will be secretive and illusive about the requested information.

These problems in the collection of program information must be understood and overcome prior to making evaluative statements. Attention should be focused on data collection methods other than direct respondent contact for determining the reliability and validity of respondent-provided information. Although the success of evaluation frequently requires the use of unobtrusive data collection techniques (Webb, et al., 19), the evaluators must be careful to avoid discovery while collecting data by these means. Discovery may result in their being labeled as spies and may increase hostility within the region.¹

The second constraint is imposed by the evaluations and recommendations for change made by the researcher. The analyst must realize that the members of social action agencies, especially those involved in a controversial social action program, are aware of any disputes and are anxious to maintain their positions within the bureaucracy. To these individuals the evaluator is a threat, for if the project is judged unsuccessful, the positions of the program members may be jeopardized. When confronted with this situation, the members of a social action program may use certain techniques in attempting to avoid responsibility for the program. The first of these techniques is to be vague and general about the goals of the program and the

¹ The evaluator of a recreational development in Alberta used the campsite overnight without identifying himself. When the campsite attendants discovered the visit, he was accused of spying and a user survey which depended on the attendants' cooperation was jeopardized.

methods by which these goals may be obtained. For example:

The major objective ... is to promote change, through demonstration and research, in the character of human service rendered by governmental, private and public institutions by making such services as effective and economic as possible so that its recipients are more highly motivated to participate in community affairs. (P.C.C.A., 1963:11).

Or with respect to the recent Alberta/DREE agreement for the Lesser Slave Lake area:

Provision made for incentives to primary and secondary industry to locate in an area with resource potential thus creating job opportunities especially if these were coupled with educational and social adjustment programs enabling people of the area to take advantage of the opportunities created [sic] (HRDA News Release, May 13, 1970).

Grandiose ideals present problems to the implementor of the social action program and may serve to discourage program implementation. How does an implementor "promote change in the character of human service"? In the absence of consensual means for attaining this goal, a multitude of programs could be contrived. Indeed, simply because a program must be implemented, attention may be focused upon some visible facet of the community which may or may not be related to the ideal expressed by the goal. For example, the goal of promoting the general well-being of the community might be interpreted as removing people from the welfare roll.

How can the success of a program with such content be evaluated? The empiricist finds that there is no precise definition of the information sought by the agency; that the objectives of the agency are in a continual state of flux; and that since the agency has hired a "scientist" to do its evaluation, he will wave his magic wand and produce results informing the members of that agency of the success of their projects with respect to the general ideals of the program. If the analyst ultimately fails to understand the interrelationship between the general ideals and the specific projects of

the program, his competency may be questioned. Even when the interrelationship is understood (although not necessarily accepted as valid), certain problems arise. As long as the evaluations produced by the researcher support the social action program, very few problems arise. The existence of supportive evaluation, even of an extremely limited nature, enables the initiators of the program to claim success in attaining their goals. To be objective, however, the researcher must ask two questions: "What are the necessary variables and considerations pertaining to success of a given project?" and "How is it possible to attribute 'success' or even 'failure' to a given project?" From a detached point of view, it appears that success, like beauty, is in the eye of the beholder; for without specified objectives, specified means for obtaining these objectives, and specified criteria through which success or failure can be assessed, a clear-cut, viable position regarding evaluation cannot be taken. But evaluation is an essential element in the social action process and must occur!

The failure of the evaluation to support the program reveals an interesting principle: evaluation that is supportive of one aspect of a social action program is generalized to be supportive of all aspects and participants, but evaluation which is not supportive of any or all aspects of a program is heavily discounted or even negated. The process by which evaluation findings may be neutralized or negated includes many techniques, three of which follow.

A first technique involves the suggestion that the purpose and orientation of the program were either not known to or not completely understood by the evaluator. The evaluation of a social action project in Alberta provides an example. After much searching through the records of the program

and questioning of the staff, the presented consensus suggested that no written statement of the purpose of the project or of its plan of attack was available. Considerable time was devoted to ascertaining and understanding the goals of the project. The statement of aims finally produced was approved by the staff involved in the project, and the subsequent evaluation was based upon this statement. The evaluation, while generally favorable, expressed certain doubts about several aspects of the project. At the formal presentation of the evaluation results, one of the head instigators of the project produced a statement of the orientation and goals of the project, a statement which had in fact been in existence before the research was instigated but the existence of which had been denied earlier by this same individual. The fact that the evaluator was unaware of this statement enabled this instigator to suggest carelessness and lack of thoroughness in the assessment of the project. Consequently, the findings were negated by pointing out that the evaluation had not even addressed itself to the orientation and means of the project as originally conceived.

A second means of negation involves the selection of variables that define the focus of the evaluation research. The evaluator is a prisoner of his science and must rely upon the established theoretical knowledge of his discipline. The number of possible (or actually occurring) consequences and the selection of variables is primarily a function of the evaluator's mode of perception. This perception, of course, depends to a certain extent upon the nature of the project; but since the evaluator is seldom a participant in the social action program from its inception, it is primarily a function of the current attitudes of the researcher and the current state of development of his science. When the evaluation report is written, the considerations, the focus, and the variables selected by the evaluator

present an image of the evaluator himself. If the focus of the initiators differs from that of the researcher, it may justly be pointed out that the researcher cannot draw the conclusions he presented because he did not consider certain aspects of the program that were important to the policy makers. That is, certain variables were excluded while others were included and while a given type of consideration (i.e., a theoretical evaluation) may be useful, what may have been desired was a practical rather than theoretical evaluation or a clientele study rather than a region wide evaluation. The criterion for success of evaluation is not the degree of accuracy in its interpretation, but the degree to which the conclusions of plausible to its recipients (Nettler, 1970).

A third technique of negation may be called the "pilot study approach." Establishing a pilot program enables program administrators to ascertain the effectiveness of a particular type of action. Labeling the project "pilot" suggests experimentation and innovation. An attempt is being made to attain goals through techniques whose effectiveness is relatively unknown. A pilot social action program can be based upon a number of pilot projects such as in the Alberta Census Division 14 program.¹ This approach is extremely safe for program personnel. Even if a project is a total failure, one can always maintain that experience and knowledge were gleaned from the failure, experience in working with the social action process and knowledge about the types of projects or techniques which are ineffective. Thus, old pilot projects typically fade away through piecemeal defunding.

¹ This program was initiated in 1964 and subsequently funded for nearly \$7 million to 1971. The authors of this article are part of a team to design an evaluation system and to evaluate the program.

What are the implications of the pilot approach? The program cannot accomplish any major goals because it lacks the full support of the social action program. Secondly, the staff need not concern themselves unduly with success or failure--their positions are relatively secure in that failure does not imply deficiencies in their performances--but they can rather focus on problems in the interpretation of the social action process. Thirdly, it is not unusual for a five year social action program to mean five years spent modifying five different pilot projects of limited scope, funding and impact. Indeed, it may be suggested that the limited successes and widespread failures of pilot projects result from "self-fulfilling prophecies" (Merton, 1957). Finally, the approach runs a heavy risk of cheating the participants in the program. Initiation of social action involves people who participate in good faith without understanding the limited commitment of the program to their problems.

In resumé, the second constraint on the researcher is imposed by action within the program, the agencies involved and the analytic methods employed. Irrespective of the objectivity and accuracy of analysis, agency insecurity, imprecise goals, and action seen in terms of pilot programs all encourage discrediting tactics against the researcher and his product. On the other hand, acceptance of the evaluative results and their incorporation into the program soon create a vested interest for the researcher. The second horn of this dilemma is the third constraint imposed upon the evaluator.

This third constraint involves the dual role of the evaluator as a scientist-researcher and as a concerned and responsible citizen. There is a vast literature dealing with this topic from Mannheim (1943) to Weber (1946) and Merton (1957). This constraint is concerned primarily with the

role of the evaluator as advocate. One of the distinctions between the pure and the applied scientist is drawn in terms of purpose, the former being concerned with the description and understanding of the social world and the latter with control of that world (Greenwood, 1961:74). As an evaluator, the researcher is partially responsible for making recommendations for changes in addition to questioning the nature of the organization. These recommendations may be of the pure "if...then" type without advocacy. The evaluation game, however, seldom allows the researcher to escape advocacy.

In evaluating a particular project, the researcher may note that a certain policy is detracting from the effectiveness of the project. His evaluation reports may state that if such a policy is continued, certain results can be anticipated. The initiators of the project may then request recommendations from the evaluator regarding alternative policies which will yield the desired effect. At this point, however, the trap is sprung, and the researcher who wants to avoid advocacy is caught. Refusal to recommend alternatives implies criticism without willingness to make positive contributions. The ivory tower image of researchers is crystallized, the role of the evaluator is negated, and the policy continued in effect.

On the other hand, the researcher may suggest that certain policies have effects similar to those desired by the initiators. The real danger is that recommendations are accepted as truth and are adopted without due consideration of the policy perspective. The researcher may then receive the dubious honor of evaluating his own suggestions, thus experiencing role conflict and compromising his objectivity.

When the evaluator does become involved as advocate; a project's failure, for whatever reason, to realize the goals as perceived by its

instigators may be attributed to the evaluator. If recommendations were made, their validity may be questioned. If the evaluator refused to make recommendations, failure may be attributed to his lack of cooperation.

Advocacy may be among the most fundamental precepts of a social action program. As mentioned earlier, both regions and people become the focus for social action when they fail to conform to a particular definition of success or well-being. A program may be self-defeating, according to Morris and Rein (1967:189), when "the restoration of individual dignity is taken as a psychological social and economic problem, inherent in those who are demoralized rather than as a moral problem, inherent in the society which humiliates them."

What are the alternatives for an evaluator who questions the basis upon which a social action program has been developed, who questions the manner in which people are being treated, who questions the assumptions made about what people should be like and must become, who questions the spending of tax money with little or no results, but whose comments and evaluations are ignored? The simplest alternative is to avoid involvement, to remain in an ivory tower and contemplate the world in abstraction. But is this the responsibility of the social scientist? Despite the long debate over this issue, the search for the most appropriate role still imposes a major constraint upon those involved in social action research.

The tone of this paper has perhaps tended toward pessimism concerning the role of an evaluator. The constraints described and illustrated are the negative side of evaluation. Generally speaking, human beings dislike admitting flaws in their actions, and the complexities of regional development provide ample opportunity for flawed action. This is precisely why ongoing evaluation of public programs must occur. By getting people to

admit that programs are usually less than perfect, the researcher can do much through personal contacts to remove or lessen the impact of the constraints imposed upon him. Certainly the success of evaluation will be enhanced through better understanding of the nature of these constraints by all parties involved in the social action process (Hackler, 1967).

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THE ACHIEVEMENT MOTIVATION SUBSYSTEM

INTERIM REPORT

Leonard Stewin, Victor Matthews, Leonard Apedaile

December 10, 1970

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Attention has been given to the difference between "merely trying hard" and profiting by immediate experience to change goal directed strategies. The distinction between goal striving and goal attaining behavior is not novel and has been examined by Lewin, Dembo, Tamara, Festinger and Sears (1944) McClelland (1958) and others. The McClelland-Atkinson position, focusing on goal striving behavior, is of particular interest in an ongoing evaluation scheme. One essential aspect of any program such as HRDA should be a change in the goal striving behavior of the individuals in the region.

McClelland (1951) was particularly interested in a subject's "ideal goal" or the value which the subject attaches to doing well in a particular task. Problems of measurement were readily obvious (McClelland, 1951, p. 566). In attempting to assess achievement motive, McClelland utilized a projective technique, based on the Thematic Apperception Test (TAT). This technique represented an extension of Murray's (1938) earlier work with the TAT. Subjects are presented with 4 TAT cards and then asked to write a five minute story constructed around the TAT figures and several standard questions. The pictures are purported to suggest achievement themes and scoring is based on the presence or absence of achievement imagery.¹

Of more relevance to the present investigation is the theory of achievement motivation postulated by Atkinson which incorporates the projective assessment technique employed by McClelland to determine the strength of the motive to achieve (n Achievement) and the Test Anxiety Scale developed by Mandler and Sarason (1952) to assess the strength of the motive to avoid failure. The Atkinson model of achievement motivation represents an analyses

¹A detailed account of the development of a need to achieve can be found in McClelland (1951, 1958) and Winterbottom (1958).

of the interactive components of anxiety and achievement motive on human learning and performance. The theoretical conception utilizes self report measures of anxiety and the analysis of imaginative behavior. Atkinson (1965) sees the integration of these two diverse lines of research, notably that of Spence (1958), Taylor (1956), and Sarason, Davidson, Lighthall, Waite and Ruebush (1960) on anxiety and that of McClelland (1951) using the projective technique of the TAT, as representing both the "study of individual differences and the study of basic processes" (ibid. p. 27).

Three key concepts are found in Atkinson's theoretical framework: motive, expectancy and incentive. The strength of motivation to undertake some act is believed to be a multiplicative function of the strength of these three variables

$$\text{Motivation} = f(\text{motive} \times \text{expectancy} \times \text{incentive})$$

$$T_a = f(M_s \times P_s \times I_s).$$

A person's tendency to approach or avoid achievement related activity is deemed to be determined by the interaction of parallel constructs (a) a relatively stable disposition or motive to achieve success (M_s) or to avoid failure (M_{af}); (b) a subjective probability of success (P_s) or failure (P_f) where $P_f = 1 - P_s$; and (c) the attractiveness or incentive value of success (I_s) a negative incentive value of failure ($-I_f$). The product of the three success variables ($M_s \times P_s \times I_s$) is conceptualized as a tendency to approach success while the product of the three failure variables [$(P_f \times M_{af} (-I_f))$] is seen as a tendency to avoid failure.

A resultant motivation score (T_a) is obtained by subtracting the avoidance tendency from the approach tendency. A positive score indicates success orientation, a negative score, avoidance or failure orientation.

The relationship is as follows:

$$\begin{aligned} T_a &= (M_S \times P_S \times I_S) - [M_{af} \times P_f (-I_f)] \\ &= (M_S \times P_S \times I_S) + (M_{af} \times P_f \times I_f) \\ &= M_S - M_{af} [P_S(1-P_S)] \end{aligned}$$

In the research conducted by Atkinson, TAT responses have been employed to measure need achievement. Test anxiety scores provide a measure of the concurrent motive to avoid failure. At the present time there is a considerable body of evidence which indicates that individual differences in need for achievement (n Ach) as measured by the TAT can be related to criteria measures of achievement performance or striving (Holmes, 1968). The use of the TAT and anxiety measures as the indicators of n Ach has been well documented. See Atkinson and Litwin (1960), Barnette (1961), deCharms, Morrison, Rietman and McClelland (1955), Izard (1962), McClelland (1958), Weinstein (1969).

Several attempts to construct an objective measure of n achievement have been undertaken Hurley (1955), Lynn (1969), Weinstein (1969). Of various instruments described and utilized in the literature, the measure developed by Myers (1965) would appear to be most suitable in the present study.

Design of the Study

As no prior measures of achievement motivation were administered at the inception of the HRDA project, no inferences can be made in regards to the effect of the HRDA project on this construct. However, since the concept of achievement motivation is deemed to be a central one in changing economic conditions the inclusion of a measure of this type in a larger evaluation scheme is necessary. Several aspects of the program, including the social action process, the Lion's Park, the Home Visitor Project and land clearing,

are implicitly directed at achievement motivation. As a result, the present investigation is designed to examine achievement motivation as it presently exists in CD 14 beginning in the Edson area and to compare results in relation to another region.

Sampling and Procedure

The entire population of grade 9, 10 and 11 students in the Edson district will be tested in early January. Students will be utilized because (a) they tend to reflect parental attitudes re achievement motivation (b) the residents of the area may have been "surveyed to the point of hostility" (Matthews and Apedaile, 1970). From this population children from families which have benefited directly from the HRDA program will be selected (S_1). A comparable sample (S_2) will consist of children whose families have not been directly involved with HRDA programs. Subjects will be matched on the basis of age, sex, socio-economic status, and intelligence. A third sample (S_3) matched to S_1 on the above criteria will be drawn from a region judged economically comparable to the Edson region prior to the instituting of the HRDA project. Differences in achievement motivation will be compared among the three groups.

Instrumentation

The following instruments have been adapted and will be utilized:

- (1) The Myers Achievement Motivation Scale (1965). This objective instrument consists of 12 items related to achievement in school. The scale was selected because of (1) its simplicity (myers 1965, p. 361); (2) its favorable comparison with McClelland et al results (1953, p. 237) using the standard projective technique.
- (2) The Socio-Economic Index for Occupations in Canada (Blishen, 1967).

In addition to considering education and income for ranking occupations,

this scale also includes the Pino-Porter occupational scale which is a social standing or prestige opinion measure of occupations as a third basis for establishing socio-economic ratings. The combined scales can be utilized to obtain socio-economic scores for 320 occupations.

(3) Lorge Thorndike Group Intelligence Test (Levels 4 and 5)

The above test was selected for a group measure of intelligence because of the sound theoretical rationale underlying the choice of content, the size and representativeness of the standardization sample, the reliability of the IQ's and the generally superior quality of test construction procedures followed in developing the test.

Total testing time for the above battery will be approximately 90 minutes.

Summary

The present investigation is designed to examine achievement motivation displayed in a comparable area. In any situation where large sums of money are being utilized to induce economic change in a given region, one might expect concurrent change to be taking effect in terms of achievement motivation. Unfortunately in the existing situation no priori measures of achievement motivation were administered thus no direct statement regarding the influence of the HRDA program can be made. The benefit of the study is not a direct evaluation of the HRDA program but rather in relating the concept of achievement motivation as a subsystem to the larger evaluation system being developed.

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ESTIMATION OF INCOME MULTIPLIERS¹

Leonard Apedaile, Victor Matthews and Leonard Stewin²

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¹ The research for this paper is under University of Alberta contract number 55-08037 with the Alberta Human Resource Development Authority.

² Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, Victor Matthews is assistant professor, Department of Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

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Purpose and Objectives

Expenditures originating outside a region have an income impact in the region greater than the value of the expenditure. The income multiplier is responsible. Regional development programs constitute a mix of tax reductions and expenditures ranging from transfer payments, investments in public works, private investment and tourist spending. The multiplier may be different in each case. The purpose of this research is to provide an estimate of the income multiplier for communities of a development region so that the full economic impact of expenditures could be estimated.

The objectives of the research were:

1. To estimate the multiplier based on household spending patterns in four small towns in Alberta.
2. To measure the variability of the multiplier estimates.
3. To establish the relationship between the distance of a community from a large metropolitan centre, and the size of the multiplier.
4. To test the possibility of approaching households about their spending habits.

Previous Attempts to Estimate Multipliers

In connection with public expenditures under the ARDA agreement for CD 14, two previous attempts were made to obtain information on income multipliers so that the impact of ARDA money could be estimated. The names and addresses of all recipients of public monies funded by ARDA and the amounts of payments were obtained from a review of ARDA spending in the region. A request to the recipients asking about the manner in which they spent the money was mailed out. The objective was to measure two rounds

of spending patterns by following up on the second round on information supplied in the recipients first round. It was expected that the first round would provide data about household consumption and the second round about business expenditures.

The attempts were unsuccessful. Non response alone invalidated the survey. Of those who responded, many claimed ignorance about receiving any money from the government. Others provided incomplete answers. Two mailings were tried, both with no success. It was concluded that a personal interview was required with questions about recent spending, avoiding the image of checking up on specific income sources.

The Population and Sample

Four communities, Stony Plain, 1121 inhabitants, Evansburg, 472 inhabitants, Wildwood, 403 inhabitants and Edson, 3788 inhabitants are located in line along highway 16 west of Edmonton.¹ Stony Plain is largely a bedroom community 18 miles west of Edmonton. The population includes two main groups, older people on pensions and growing families. New house construction is prevalent. The cooperativeness, friendliness and freely expressed information on spending on the part of the people generally would seem to indicate substantial self-confidence.²

Evansburg is 58 miles from Edmonton. Many residents indicated they were "behind the town." They were proud of spending in the town and were receptive to the interviewer. There are several new stores, and new

¹ "Population" Census of Canada, D.B.S. 1966.

² Of 45 respondents, 21 revealed monthly income data. In Evansburg, by way of comparison, 2 of 27 respondents provided information on incomes.

housing is in evidence.

Wildwood is 70 miles west of Evansburg. The standard of housing is significantly lower than the previous two communities, smaller and less well maintained. Apart from some catalogue buying and except for some younger families, most people spent their income in town. People were not overly friendly and several were openly suspicious and brusque.¹

Edson is 125 miles west of Edmonton. The largest of the four communities, Edson contains a broad range of consumer goods and services. Older people spend most of their income in Edson while indications are that younger families and better-off families have a greater tendency to spend out of town. Older people seemed generally reluctant to divulge information about their levels of spending.

The sample size in each of the three smaller communities was the number of people at home at the time of the interview. (August 1970) No attempt was made to follow up on non responses. In Edson, random blocks were selected from a town map as provided by Alberta Government Telephones. Again no followup was attempted for non responses. More people were away on holiday in Stony Plain, Evansburg and Edson than in Wildwood. Sample sizes were: Stony Plain 45, Evansburg 27, Wildwood 39, and Edson 91.

Interview Strategy

The subject of income and expenditures is touchy under the best of circumstances. When incomes are low the difficulties are compounded. The first questions asked in the interview avoided all mention of dollars. The

¹ Only one householder of 39 interviewed supplied information on income.



questions concerned instead percentage breakdowns of spending within and outside of town and savings. As an indication of level of living, monthly dollar outlays were subsequently requested for food and rent. People were encouraged then to specify the dollar figures for spending within the region. A final question was designed to test the difference between spending habits on windfall incomes and anticipated incomes. A hypothetical windfall of \$100 was proposed and the expected spending patterns were solicited. The whole interview required less than five minutes depending on the friendliness of the respondent when it was longer. The average variable cost per interview was \$2.64.¹

The Multiplier

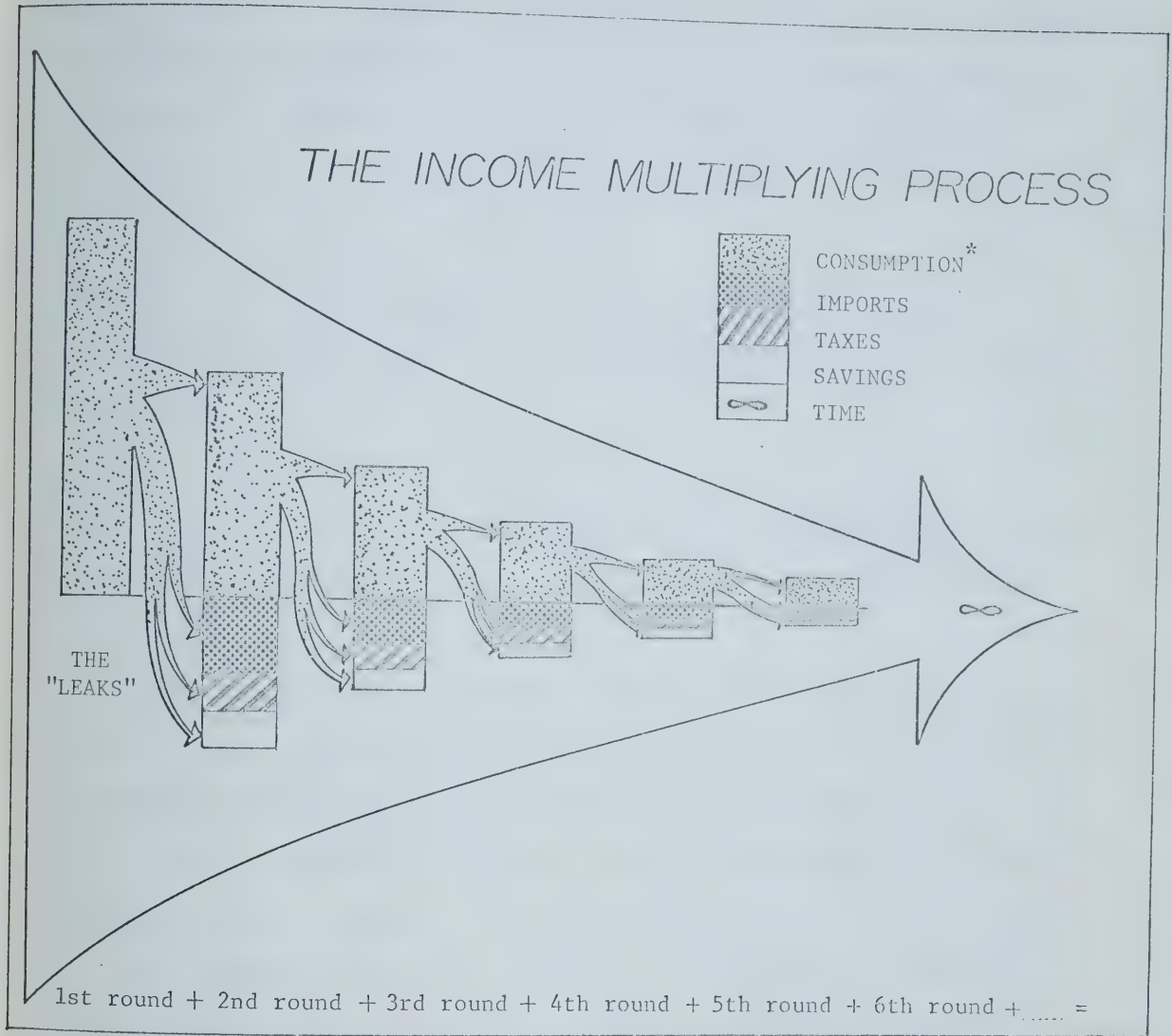
A standard tool of economists since Keynes, the multiplier represents the value of a chain of spending in reaction to an autonomous increase in income. Generally the larger the population and more economically self contained the region, the larger the multiplier.² Multipliers are probably smaller for new residents in a community.³ In developing areas such as CD 14 of Alberta new residents are generally young families who have established positive attitudes toward mobility in selecting merchants, and relatively sophisticated consumption needs and price consciousness. The greater the proximity of communities to large urban agglomerations, the lower the multiplier for those communities. In this study proximity to an urban centre was controlled for.

¹ The cost breakdown includes: salary 0.84, transportation \$1.50, board and lodging .30 per interview.

² Charles M. Tiebout, Community Income Multipliers: A Population Growth Model. Journal of Regional Science, Vol. 2, No. 1, 1960, p. 81.

³ Ibid. p. 83.

Figure 1. The Income Multiplier Process



* Domestic Consumption out of each round of income increase.

The manner of calculating the multiplier usually assumes that over the many rounds of spending the percentage of income put into circulation is constant and associated with householder behaviour from the time of injection. Hence the definition of the multiplier k :

$$k = \frac{1}{1-b}$$

where b is the marginal propensity to spend within the region (mpc).

Therefore the income impact Y^* of an autonomous expenditure Y in a region or town is:

$$Y^* = kY$$

where Y includes tax rebates and reductions, government spending, private investment or tourist spending.¹ The multiplier process is illustrated in Figure 1.

There is a notable exception to the assumption that b is constant. For relatively non industrialized and isolated regions such as constitute DREE designated areas of Canada means however that b is not constant over all rounds of expenditure.² In this research we postulate that for odd-numbered rounds of spending the marginal propensity to spend is a constant b . These rounds correspond to household behaviour *when the injection of income begins in households*. For the even numbered rounds, there is a different marginal propensity to spend in the region, b^* . These rounds correspond to business behaviour *when the injection of income begins in households*. The mpc b^* will be lower than b and smaller the more the region imports consumption goods, services, utilities, and

¹ In the case of tax reductions or rebates the multiplier would be $k^* = k-1$.

² DREE is Department of Regional Economics Expansion.

Table 1. Statistical Summary of Spending Patterns for Disposable Income
In Four Communities of Alberta, August 1970

	Stony Plain	Evansburg	Wildwood	Edson
Sample size	45	27	39	91
Percent of income spent in town				
Mean	64.5	62.6	78.6	78.9
Median	67.0	70.0	80.0	90.0
Standard deviation	23.9	25.3	20.9	21.2
Coefficient of variation	27.5	40.4	26.6	26.9
Percent of income spent out of town				
Mean	30.4	31.8	19.2	15.6
Median	25.0	25.0	15.0	10.0
Standard deviation	23.2	21.2	19.9	17.4
Coefficient of variation	76.3	66.7	103.6	111.5
Percent of income saved ^a				
Mean	5.2	6.2	2.2	5.4
Median	-	-	-	-
Standard deviation	-	-	-	-
Coefficient of variation	-	-	-	-

^a So many zeros were recorded with a few large percentages that the means are quoted only to expedite the work. Other statistics are meaningless.

transportation.¹

In the case of income injections entering the region through households, the formula for calculating the multiplier is

$$k_1 = 1 + b + bb^* + b^2b^* + b^2b^{*2} \dots b^nb^{*n}$$

for n usually equals to 3 or 4, equivalent to 6 or 7 rounds of spending.

Income injections in this category are government transfer payments, salaries, subsidies and tax refunds.

¹ The new impact formula would be $Y^* = (1 + b + bb^* + b^2b^* + b^2b^{*2} + b^3b^{*2} \dots) Y$.

In the case of income injections through businesses, the formula is slightly different in that the b and b^* are in reverse order

$$k_2 = 1 + b^* + b^*b + b^{*2}b + b^{*2}b^2 \dots b^*nb^n$$

for similar values of n . The multiplier k_2 is less than k_1 for $b^* < b$, which is generally the case. Precisely, $k_1 - k_2 = b - b^*$. Income injections resulting in k_2 are tourist spending, government procuring of goods and services, business subsidies, tax refunds and operating grants.

Now compare k_1 or k_2 with k . The multiplier k is larger than k_1 or k_2 if b^* is less than b . If b is equal to b^* (the conventional assumption) then the number of rounds of spending required before the effect of an income injection is dissipated is greater than for the case $b^* < b$. For example if one month is required to effect one round of spending, the impact of an income injection for $b = .60$ would last for 9 or 10 months. For $b = .60$ and $b^* = .20$ the impact would last less than six months. The implications of using k_1 or k_2 as opposed to k are lower income impacts lasting less time.

Results

The interview technique proved feasible. Refusals were insignificant. If the pattern of holidaying over the summer was random, this factor should not have biased the results. However, situations where both husband and wife work at the same time would preclude response from this type of household and could have introduced some bias.

Respondents could have lied about actual dollars of spending, although no reason was apparent for deception. For intertemporal comparisons, it can be assumed that within the sample the pattern of lying would remain constant.

No estimates are yet available for business spending patterns. Both large and small business and industry are reticent about revealing any information. A generous marginal propensity to spend in the region of 20 percent is assumed considering an average markup of +40 percent, taxation, payments for utilities purchase of extra-regional services, and savings.

The survey only concerned disposable income. Questions about income taxes, insurance, pensions and other payroll deductions were avoided for obvious reasons. Therefore an average 15 percent was used to adjust disposable income up to gross income.¹

Marginal propensities to spend in the region are displayed in Table 1 and Figure 2. Coefficients of variation ranged downward, the farther away the community is from Edmonton. This trend resulted from an upward trend in average mpc and downward trend in standard deviations of the mpc.² The median mpc's were generally close to, though always somewhat higher than the mean, revealing a tendency to normality of the distributions.

Propensities to save were highly variable, ranging from a reported 75 percent to 0. Although unsatisfactory, the simple averages of savings were used. The averages ranged from 6.2 to 2.2

Most of any windfall gain which could be an interpretation of ARDA payments would be spent rather than saved. In Stony Plain 14 percent of

¹ Department of National Revenue, Taxation Statistics 1967. In 1965 the average income tax payable was 10.1% of taxable income.

² The mean was unweighted by income level since the level wasn't always available. In future investigations a greater attempt to document a benchmark income level must be made.

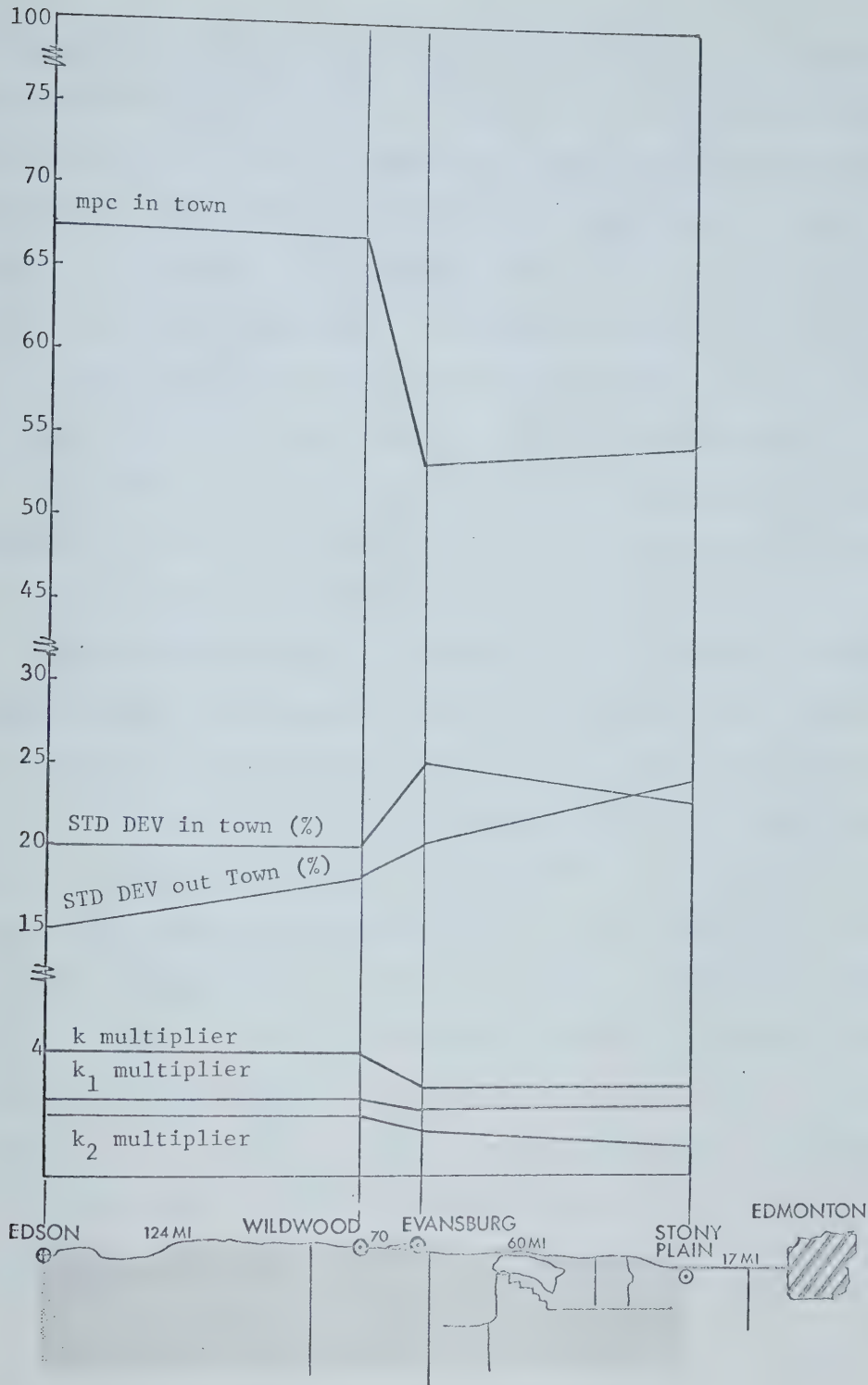


Figure 2. Marginal propensities to spend, their standard deviations and three multiplier estimates for four towns according to the distance from Edmonton.

the respondents would save the entire windfall, whereas 7 to 8 percent in Edson and Wildwood would save the windfall. The willingness to spend the windfall in the town of residence was significantly lower than the propensity to spend ordinary income in town. Generally only about 50 percent of the people would spend part or all of the windfall in town. Table 2 shows the distributions of spending intentions for windfall income.

Income multipliers for the towns were expected to be lower than for larger areas such as the province. When the mpc was assumed constant over all rounds of spending, the multipliers (k) ranged from 2.13 for Evansburg to 3.04 for Edson (Tables 3 and 4). Despite apparent community pride in Evansburg, the multiplier was lowest for that town.

The second formulation of the multiplier k_1 resulted in lower values than the first, lower by more than 19.0 percent. For Evansburg the value was 1.71 and for Edson 1.92. That the values are significantly different according to the theory means that considerable attention must be paid to a choice of methods. The estimate can be as much as 37 percent lower when k_1 is used rather than k , and 52 percent lower when k_2 is used. Refer to Table 4, the row for Edson. Refer also to Table 5 where the rounds of spending are detailed. Using k , the number of rounds required to reduce marginal impact to less than one cent on the dollar in Edson is compared to for k_1 (or k_2). Since these discrepancies in impact and time could wipe out benefit/cost ratios up to 1.5, the consequences for planning and evaluation are important.

Table 2. Distributions of Proposed Spending of a Hypothetical \$100 Windfall in Percentages for Four Communities of Alberta, August 1970

	Stony Plain		Evansburg		Wildwood		Edson	
		%		%		%		%
Types of spending								
Would spend \$100 in town	9	21.4	10	45.4	13	36.1	33	50.8
Would spend <\$100 in town	11	26.2	3	13.6	5	13.9	6	9.2
Would spend \$100 out of town	16	38.1	9	40.9	15	41.7	21	32.3
Would save \$100	6	14.3	-	-	3	8.3	5	7.7
Total	42	100.0	22	100.0	36	100.0	65	100.0

Table 3. Summary of Spending Patterns in Four Communities Adjusted For a Gross Income Basis, August 1970

	Stony Plain	Evansburg	Wildwood	Edson
Proportion spent in town	54.8	53.2	66.8	67.1
Proportion spent out of town	25.8	26.5	16.3	13.3
Proportion saved	4.4	5.3	1.9	4.6
Adjustment for gross income	15.0	15.0	15.0	15.0
Total	100.0	100.0	100.0	100.0

Table 4. Comparison of Two Methods for Calculating Income Multipliers for Four Communities, August 1970

	k	k ₁	k ₂
Stony Plain	2.21	1.73	1.38
Evansburg	2.13	1.71	1.38
Wildwood	3.01	1.92	1.45
Edson	3.04	1.92	1.45

Table 5. The Income Impact by Rounds of Spending for Edson Using Various Multipliers, August 1970

Rounds	k	k ₁	k ₂
1	1.00	1.00	1.00
2	.67	.67	.20
3	.45	.133	.133
4	.30	.090	.090
5	.20	.017	.017
6	.135	.011	.011
7	.091	.002	.002
8	.061		
9	.041		
10	.027		
11	.018		
12	.012		
13	.008		
Total	3.01	1.92	1.45
Number of rounds	13	7	7

Conclusions

1. A great deal of tact is necessary to obtain information on spending patterns. However a short interview de-emphasizing dollars can accomplish the data needs.

2. Benchmark data such as age, income level, occupation and length of residence are future improvements required for the interview format.

3. The variance of estimates of propensity to consume in the place of residence is low relative to the mean indicating homogeneity of spending patterns within towns even when the other factors in conclusion 2 are excluded.

4. The farther away a town is from an urban agglomeration, the higher is the propensity to spend locally and the higher the income multiplier.

5. The income multiplier is lower for income injections beginning in the hands of business than in the hands of households.

6. The income multiplier is lower, the lower the business propensity to spend locally as compared to households. Retail and wholesale businesses are characteristic of those with low propensity to spend locally.

EXPENDITURES OF ARDA FUNDS¹

1967 - 1970

Interim Report

Victor Matthews, Leonard Apedaile and Leonard Stewin²

December 14, 1970

¹ The research for this paper is under University of Alberta contract number 55-08034 with the Alberta Human Resource Development Authority.

² Victor Matthews is assistant professor, Department of Sociology, Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

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Introduction and purpose

Expenditure of public funds in a region has various impacts. The projects which are funded have objectives which define their expected impact. The impact is implicitly related to funding expressed through budgets and appropriations. Another impact is felt through income and employment multipliers which expand direct dollar inputs. Still another impact influences the distribution of income or the incidence of benefits. This study was begun with the purpose of measuring the impact of public spending on regional income, incidence, and of picking up irregularities of spending.

Methodology and data

The method employed was, on the surface, extremely simple. Money transactions under the ARDA agreement were recorded and cross classified by recipient, project and fiscal year. All recipients were sent a request for information on how they spent the monies they were recorded as having received. Major expenditures were traced to determine the pattern of second round spending. In this manner an income multiplier directly applicable to ARDA spending would be calculated for the purpose of projecting an overall income effect from the government spending.

The data was retrieved directly from payment vouchers held by various accountants associated with the program. In some cases clerical help was available, in others evaluation personnel were required.

The results

The straight forward procedure just outlined failed. There was no complete record of expenditures available. The ARDA staff supervising the agreement were consistently vague about the existence of projects and their budgeting. Partial information was provided periodically which rarely cross

checked with previous data. There was no consensus on budgeting and actual appropriations. Table 1 contains the most complete budget information which the evaluation team has been able to acquire. This list does not correspond, with the undated statement of the ARDA project 28056 except for appendices G, H, J, K, L. Appendix A is a list of project titles to complement Table 1. There is furthermore no guarantee that these budget values were actually appropriated as planned. Many projects received supplemental funding throughout their years of operation. In short the first difficulty, never quite overcome, was the matching of projects with budgets and appropriations.

The next difficulty concerned the data collection. There were at least 10 separate accountants involved in different government and non government agencies. They all kept records differently. In the accounts branch of the Department of Agriculture where most of the monies were accounted for, there was an unbelievable morass of cardboard boxes and files to work through with code or translator numbers bearing no connection with the ARDA project numbers. There were even cases where Agriculture claimed Water Resources was handling a project valued at several hundred thousand dollars. Water Resources denied ever seeing the named project. There were similar situations between Agriculture and Lands and Forests. Under these circumstances no reliable balance sheets could be prepared.

The accounts branch of the Department of Lands and Forests have provided up to date information about projects under their jurisdiction. In table 2 some aggregate estimates of spending are compared to budgeted funds and their distribution between CD 14 and elsewhere. Over all projects 75.7% of budgeted funds were spent in the period 1967-1970. Of \$878,820 budgeted

Table 1. List of ARDA projects with their estimated shareable costs in dollars for F Y 1967-68 through 1969-70.

Project Number	Budget 67-68	Budget 68-69	Budget 69-70	Total
28003	24,450	24,450	24,450	73,350
28032 suppl.	16,875	15,825	2,700	34,400
28032 renewal			15,000	15,000
28035 revised	80,000	85,000	90,000	255,000
28035 suppl.	55,500	75,000	100,000	230,500
28012	70,200	71,700	73,200	214,100
28017	74,960	74,960	74,960	224,880
28017 suppl.	27,720	24,720	24,720	77,160
28021	113,080	130,000	146,920	390,000
28022	150,000	150,000	150,000	450,000
28022 suppl.			40,000	40,000
28004	455,500	479,500	512,500	1,447,500
28004 suppl.		391,605	410,625	802,230
28005	23,800	23,800	23,800	71,400
28005 suppl.		78,400	56,300	134,700
28006	30,300	31,800	34,800	96,900
28007	90,700	93,700	104,200	288,600
28011	71,800	74,200	76,600	222,600
28027	33,333	40,000	50,000	123,333
28051	400,000	450,000	500,000	1,350,000
28052	608,240	750,000	750,000	2,108,240
28058		17,960	18,760	36,720
28059		10,500	10,740	21,240
28057		14,500	14,500	29,000
28073 renewal		82,100	181,000	263,100
28074		171,600	89,000	260,600
28081		10,000	50,000	60,000
28023	600,000	600,000	600,000	1,800,000
28050	29,900	32,700	37,300	99,900
subtotal	2,956,358	4,004,020	4,262,075	11,193,453
28056 "D"	14,000	22,000	22,000	58,000
28056 "E"	27,900	18,600		46,500
28056 "F" 1966-68	700,000	880,000	550,000	2,130,000
28056 "G" 1967-71 total		1,946,600		1,946,600
28056 "H" 1967-71 total		370,760		370,760
28056 "I"		32,400	64,500	96,900
28056 "J" 1967-71 total		164,800		164,800
28056 "K"	200,360	207,900	122,002	530,262
28056 "L"	7,500	28,000	37,500	73,000
28056 "M"			2,500	2,500
subtotal	249,760	1,188,900	798,502	19,119,322

TOTAL 20,312,775

Table 2. Summary of ARDA expenditures in dollars through the Department of Lands and Forests,
FY 1967-68 to 1969-70.

	Budget	Amount in C.D. 14	Amount Outside C.D. 14	Total Amount Spent	% of Budget Spent	% of Budget Spent in C.D. 14	C.D. 14 Spending as % of total Spending
Total 67-68	159,600	49,947.58	20,886.63	70,834.21	44.38	31.30	70.51
Total 68-69	417,260	183,437.72	169,050.53	352,488.25	84.47	43.96	52.04
Total 69-70	301,960	146,762.57	95,334.02	242,096.59	80.18	48.60	60.62
Overall total	878,820	380,147.87	285,271.18	665,419.05	75.72	43.26	57.13

for this period, 43% was spent in CD 14 or 57% of expenditures were in CD 14.

Crude estimates of total spending for the 1967-68 and 1968-69 fiscal years show that \$1,217,522 was spent on all ARDA projects related to CD 14. Of this amount 42% was spent in CD 14. The total amount spent is 17.8% of the \$6,826,622 of shareable costs provided for in the 1967 ARDA agreement.

The survey of recipients of these funds in CD 14 was not successful. The principle difficulty was that most surveys were not returned. Of those returned, 31% were undeliverable because people had moved. The majority of the balance disclaimed having received any government funds directly or indirectly from ARDA. There were nine statements of hostility and ridicule for ARDA. Apparently the sending of the survey gave people an opportunity to express their dissatisfaction.

The survey of spending patterns was based on false implicit premises. It was not reasonable to expect firms or households to remember receiving some monies over as long a period as 1965-1969, let alone how they spent the money. In addition ARDA funds often were spent indirectly without being labelled, so that recipients in fact would have no idea they were receiving such monies. Lastly, previously observed hostility towards ARDA may have made people reluctant to admit to receiving such funds and could have caused them to disregard the survey.

Summary and Conclusions

The survey of expenditures has been unsatisfactory from the point of view of consistency and accuracy. From the point of view of uncovering accounting and record keeping deficiencies, and determining a general idea of project spending the survey is proving useful. Some conclusions are possible.

1. The record keeping by supervisory personnel is inadequate. Either the information is unavailable, inconsistent with other documentation or incomprehensible. In our view this problem derives from too casual a concern for control in the sense of knowledge about funding and project activity. In the future a compact centralized record keeping system should be implemented.

2. The agriculture accounts branch is an archaic operation. A great deal of accounting is carried out to provide a minimum of access to information. The best remedy may be to replace the entire staff with computer oriented personnel trained in information retrieval systems.

3. The program has never been implemented to the level prescribed in the 1967 ARDA agreement. This conclusion is predicated on the quality of estimates possible under the circumstances. There may be other documentation that was not voluntarily provided by HRDA personnel which could counter this conclusion.

4. Despite the accounting confusion and apparent lack of control, there is no evidence of improper use of ARDA monies.

Appendix A

List of Projects Instituted in CD 14 and/or All of Alberta

<u>Project No.</u>	<u>Name of Project</u>	<u>Where Instituted</u>
9007	Pilot study - Edson	CD 14 (Agric. Econ. Div.)
9024	Ground Water - Data Processing	All of Alberta (not in Edson district)
48002	Soil Capability for Agriculture in Alberta 1965-66	All of Alberta (Soil Sci. Dept., U. of A.)
48003	Forest Land Use Capability Classification, Renewal of Project 9031	All of Alberta (Dept. of Lands and Forests)
28003	Aquifer Engineering Research	All of Alberta (RCA)
28007 (revised)	Engineering Studies of Erosional Behaviour and Channel Regime of Alberta Rivers	All of Alberta (Water Resources Div.)
48007	An Assessment of Land Suitability for Recreational Use in a Pilot Area in the Vicinity of Edmonton	CD 14 (Lands and Forests)
28012	Leadership Training for Rural and Community Development	All of Alberta (Extension Branch, U. of A)
28017	Alberta Rural Development and ARDA Staff	CD 14
28018	Training in CD 14, Edson Area	CD 14
28021	Field, Roadside and Farm Shelterbelt Plantings	All of Alberta
28022	Land Reclamation	All of Alberta
28023	Alberta Land Assembly	All of Alberta
48008	Canada Land Inventory Co-ordinator	All of Alberta
48009	Phase II of the Alberta Recreational Land Inventory	All of Alberta
48010	Soil Capability for Agriculture in Alberta	All of Alberta (Soil Science, U of A)

28028	Promotion of Tourism in CD 14	CD 14
28032	Rural Study Groups on Rural Sociology and Rural Economics	All of Alberta (Farmers' Union and Coop. Ass'n.)
28034	Lions Tourist Campsite	CD 14
28011	National Wildlife Land Capability Study	All of Alberta
28035	Forest Recreation Area Development Program Within Rural Development Area During Period 1966-70	All of Alberta
28012	An Inventory of Soil Capability for Forest Production in the Province of Alberta 1966-67	All of Alberta
28036	Project under Section 30, 1966-67	CD 14
28041	Home Visitors' Program, CD 14	CD 14
28043	Forest Land Use Capability Classification	All of Alberta
28044	Alberta Rural Development Staff in CD 14	CD 14
28045	Economic Efficiency in Pasture Production and Improvement in Alberta	All of Alberta (Dept. of Agric., U of A)
28050	Public Information Services	All of Alberta
28052	Alberta Water Control Assistance Program	All of Alberta (Water Resource Division)
28053	Projects under Section 30, 1967-68	All of Alberta
28056	The Rural Development Program in CD 14, 1967-71	CD 14

A MODEL OF SOCIETAL DEVELOPMENT

SOME IDEAS¹

Victor Matthews and Leonard Apedaile²

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¹ The research for this paper is under University of Alberta contract number 55-08037 with the Alberta Human Resource Development Authority.

² Victor Matthews is assistant professor, Department of Sociology and Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, University of Alberta.

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Introduction

The history of social action programs on the North American continent is one of doing the wrong things for the right reasons. Simultaneously with the growth of departments of community development and governmental grants for community action and stimulating of development in local regions has been much emphasis on involving people in planning and implementation. A number of general articles and books like Marris and Rein's Dilemmas of Social Reform and Monyihan's Maximum Feasible Misunderstanding are now available to document many North American experiences. Indeed, the hallmark of the recent literature is that many of these programs have been expensive disasters. In the case of CD 14, there is no evidence that the program was expensive, and in terms of the results, the program is certainly not in the realm of disaster. The purpose of this paper is to explore a normative basis against which to compare social action as one of the explicative factors entering all subsystems of the evaluation.

Significant sums of money have been spent with little or no impact upon communities. Politics have interrupted the programs and subverted the planning for change. The programs have succumbed to institutional and personal override. Yet there are very important lessons which must be learned from these experiences. It is shocking to see these lessons ignored by so much current economic and social development policy. What is past we cannot change; what is present we can but know; but what is future we can strive to control.

Past experiences can provide a twofold guide for future control. Ongoing evaluation with timely results is required to make past experiences pay off in terms of avoiding the shortcomings and failures of these programs. Secondly,

the planning, the process of development and the administration of public programs must be readily adaptable to the new information. The following discussion, then, is an attempt to put forth a schema for regional societal development based upon the theoretical evidence and the practical experience occurring from earlier experiences.

Communities and Regions

The selection of an area for a social action program is based upon many criteria, but generally, the area is deviant in some manner. That is, it may be low in income and/or employment, high in crime and/or delinquency, in need of social and/or economic development and high in fertility and so forth. However, one of the problems of area delineation is the frequent confusion of the regional and community approach. Note that the traditional community development programs were concerned with a village, a town or a socially-separate unity of some type. It is within this Gemeinschaft that innovations and social action programs were initiated. Regional development, however, ignores this crucial aspect yet involves community oriented animation.

Designated regions, in terms of Census Divisions, Enumeration Areas, "the other side of the tracks," and similar area definitions are cornerstones of regional development. Within this Gesellschaft, attempts have been made to apply the classical community action techniques. The application of Gemeinschaft techniques to the Gesellschaft definitional area is doomed to fail unless that particular area also happens to constitute the community.

Consider an illustration. The social action program in the Edson area of Alberta has a project which utilizes housewives as encouragers to prepare

the women of the house to manage more effectively and to prepare the family for attaining the goals of regional development. This Home Visitors project has been expanded into five towns and the surrounding areas. The techniques utilized are principally those of community development, a safe generalization from two years of evaluating the program is that success can be achieved in the case of individual families based on inter personal relationships with women from their own communities. However, the program is part of regional development operating through communities. This anomaly constitutes much of the approach on the North American continent during the last decade.

In a society in which communities are not separate geographical locations, the social actionist must face some very serious questions before initiating social action.

1. How should a community be "defined" for the sake of social action?
2. How can the parameters of the community be ascertained?
3. How do we deal with the problems of "communities within a community?"
4. What are the correct variables and criteria for defining a community--are there other terms and/or concepts of greater validity (i.e., reference groups)?
5. What is the size limit of the community that can be adequately considered by a project (including a definition of "adequately considered") by an individual?

It cannot be emphasized strongly enough that these questions be removed from the political arena. Politics has an important role to play in the designation and initiation of a program in terms of stating the general goals and purposes of the program. Once such statements are made, it becomes imperative that planning be independent of the demands and requirements of politicians.

Preliminary research, both in an aggregate sense using census-type data, and individual interviews and family data are necessary to provide a basis for the planners. Specifying what is to be obtained requires knowledge of both past and present conditions. Knowledge must also be obtained regarding community structure, leadership in various areas, opinion leaders, and various other parameters of the focal points in the community. For example, a Dutch, Christian Reform community should be considered quite differently from a French Catholic community or an Algerian village, and the techniques for development and/or change should also be different. Thus, one of the most important independent variables is the cultural ethos of a given community.

It is at this point that politicians and bureaucrats must also be included in a community approach. The ideas and techniques of the planners must become, or come from, those of the politicians and bureaucrats themselves. The major problem in social action programs is not providing answers--for most of the answers may be provided by almost any well-read, intelligent person; but is asking the right question and knowing the major variables which must be considered. Once the problems which are to be faced within a particular area are known, providing the answers may be facilitated. It is this phase--the decision-making phase--where the planning team may lay their questions and variables before the politicians and bureaucrats and ask for advice. This process does not mean that the answers may not be ascertained by the planners, but that it provides an established basis for decisions, with maximum feasible participation in the project. The planners initiate the process, their ideas, and their solutions.

Two aspects of conventional social action require modification. First some issue around which community action could be initiated has to be

found. The nature of the issue may or may not be related to the goal of regional development, but it must be a salient tangible relevant issue. Issues have been expensive (Lion's Park in Edson) and have involved government funds, government leadership and government names. The frustration of reaching the community goal turns off community interest. Or, goal attainment eliminates interest. Rather than maintain community participation in other projects which are considered by the planning committees the government goes ahead on the shallow basis of community legitimization. The community then easily becomes overlooked, along with much inherent expertise. The community reverts to the role of battleground for inner circle interests.

The second aspect is research or documentation. Research must play a continuing role with the project--indeed, one of the earliest suggestions might be to have a small amount of research done for the community to suggest ways by which the goals might be determined. Utilization of research at this very early step has two effects; first, it is educational in that the community becomes accustomed to the existence and utilization of research for answering pertinent questions and second, it provides support for the utilization of "experts" and for the advice of specialists. The entire program must be "sold" to the community and the community development program must come in only upon request. In fact, splitting some of the cost of the specialists with the community is a very worthwhile approach. That is, an expert could be sold to the community on the basis of "matched funds" with government, or even with the community responsible for the total costs. With this type of an approach, the community is responsible for hiring the expert; the community is responsible for cooperating with the expert; the community is responsible for the expert's behavior; and the community is responsible for initiating the action recommended by the expert.

This philosophy is based upon the interpretation that many individuals are accustomed to having the government do their research and work for them and are unwilling either to participate or initiate indicated action. If a community is expected to pay (whether the full sum or a token payment), greater cooperation will be given to the expert and greater utilization will be made of the finished product.

Dynamic Adaptive Model

The main purpose behind social and economic development is to change already changing social and economic parameters or boundary conditions in the region concerned. Yet so many programs are one-shot affairs under a premise that there exist sufficient conditions (infrastructure, attitudes, wealth) which the program will bring about to permanently rectify a situation. It may be well to recognize the quasi-permaninancy of development lags in Canada. There must be a distinction between frontier-type development and chronic regional depression following on development booms. The development program could be of three types, renovation and expansion, abandonment and orderly contraction, or frontier expansion. The social action which is used to build the development program from the people up to government may have to be different in each type of development and may indeed be less necessary for some, like the frontier expansion. Whatever the case may be, the social action must be dynamic and adaptive. The social action objectives must be carried through to the civil service and political structure.

"Dynamic and adaptive" means varying government attitude and community attitude. Consider a conflict model where conflict is promoted and exploited for mutual government and community gain in various phases of social action.

The role of government should be alternatively assertive and passive. The community will be naturally or can be prodded into being alternatively active and reactive. Being primarily interested in the government behavior, consider how an assertive role will react with an active and reactive community. In the first case (Figure 1) the government will be accommodative, asserting its role of complementing community action even though that action may not be strictly compatible with development principles. This accommodative behavior should not go against sound economics or else the government will be open to local ridicule. The main objective is to assert a sound adaptive open government presence in the region.

The next interaction is between the still assertive government presence and a reactive community. Conflict is the result. Conflict will occur as development goals replace the more limited early community goals. There will be conflict over the means to attain the goals. Community consensus should normatively result enabling the community to push back the government with concrete proposals for local action and government funding. At this point the government may make the large error of picking up its marbles and going home.

The government role following the conflict phase should rapidly adapt to being passive allowing the community to take on an active role. This passive/active combination could be called cooperative. The community has now self-assigned difficult tasks. It has to fight its own battles with business and government. The government should become facilitative and ready to adapt with money and expertise to the action of the community. With government continuing its passivity, the community takes on somewhat of a reactive role. The result of the passive/reactive interaction is an integrating role for government. It accomplishes this role by performing an advisory and consultative

R O L E T O T H E C O M M U N I T Y		
	A C T I V E	R E A C T I V E
A S S E R T I V E	Phase I 1. Specific program goals 2. Limited community goals 3. Immediate gratification 4. Independence of action for agency 5. Community definition of action 6. Free utilization of funds ACCOMMODATIVE	Phase II 1. Complete social action 2. Bargain for a change in community (individual) attitudes in exchange for assistance 3. Change staff orientation and probably staff personnel CONFLICTIVE
P A S S I V E	Phase III 1. Social action goals 2. More difficult tasks 3. Make community "fight" its own battles with government/business 4. Agency role more one of cutting red tape and assisting individuals in reaching goals CO-OPERATIVE	Phase IV 1. Social conscience 2. Advisory role only 3. Referral agency 4. Consultancy purpose 5. Small, well-informed staff INTEGRATIVE

Figure 1. Dynamic adaptive model of a social action process.

service and acting as a social conscience. This phase of the dynamic adaptive social action process is analagous to Rostow's age of high mass consumption. Dangerous is the assumption that the region has arrived, however.

The government should be prepared at any time to shift back to an assertive position designed to produce activity or reactivity from the community. For some types of development, especially renovation and expansion, the integrative phase (Figure 1) may rarely come about or if it does, it may last only a short time. Instead the social action will oscillate between the cooperative and conflictive phases. The main principle to be followed is adaptation to changing social and economic parameters.

The four phase social action concept certainly focuses on local government teams. These teams should work with a coordinator or commissioner of high civil service rank, and a permanent clerical support staff. However, the teams may have to be changed for each phase of the social action process or at least between the passive and assertive roles of government. It is doubtful that the same personnel could be effective in both roles. At the same time failure of central government to adapt to team engagement and disengagement from the community will jeopardize the best socialization process.

Disengagement by the teams following a conflictive phase must not be interpreted as failure. If the central government decisions on this score are too closely political, with the inherent fear of failure and loss of votes, then disengagement to a passive role may mean permanent defunding, and shift of political interest to other less nerve-wracking development efforts like road-building infrastructure and industrial incentives. This need for close understanding and support up the administrative hierarchy is the reason why the pros and cons of professional versus political management of development

programs was explored earlier. The whole public intervention depends on dynamic adaptation by government to the economic and social evolution of a region.

Questions and Concerns

Instead of summarizing, let us pose some questions. That social action must predicate public interventions in regional development implies a questionable premise. It implies regions lag economically and socially because of their inhabitants. There is no obvious evidence that the inhabitants are indeed responsible. Shifting markets, technology, an education system, the church, or maintenance subsidies may have caused a need for their adaptation and at the same time killed their opportunities, perceptions, and stamina. Now if government action waits for regional or community consensus and formulation of reasonable objectives and plans which take a long time to emerge or may never emerge, what about the moral responsibilities to subcultures, communities, individuals?

Another question concerns the theoretical foundation to social action. How is the concept and its collection of strategies related to achievement motivation, valid social change and economic progress? To our knowledge there is no documented or tested theory about the effects of social action.

The real challenge is to find a social stimulation or animation process which embraces a plurality of subcultures and communities which may together comprise a potentially viable regional economy. The challenge is to maintain public animation in these regions so that with intimate public/private investment combinations disparity may be dispelled. Some suggestions being developed here may improve knowledge on these concerns. We hope these

ideas will lead to a normative comparison base for the evaluation of process in regional development. Perhaps more important than projects, the strategy or process is an explicative factor which determines success or failure of public interventions.

IMPACT OF THE SILVER SUMMIT SKI RESORT

ON EDSON AND ENVIRONS¹

Leonard Apedaile, Victor Matthews and Leonard Stewin²

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¹ The research for this paper is under University of Alberta contract number 55-08037 with the Alberta Human Resource Development Authority.

² Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, Victor Matthews is assistant professor, Department of Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

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Introduction

This component of the evaluation system belongs as an explicative factor of the income subsystem. Recreation development is considered as a contributing factor in regional income, employment, achievement motivation and resource development. Opening up recreational resources would be beneficial in more than an economic sense through the demonstration effect on other potential entrepreneurs, access to adjacent resources and satisfaction of recreational needs of an urban society. Achievement motivation could result from improved expectations for the future on the part of local businessmen. Surrounding communities could obtain a certain motivation to do better as evidence of a successful venture becomes more obvious. Employment could result directly within the resort development and from spread effects in supporting services. Income impact occurs through the income multiplier and expenditures in surrounding communities by users. All these possible benefits of a ski development as they pertain to the region would of necessity be considered in a decision on expenditure of public funds to foster the development.

In C.D. 14, a request for public support by ARDA in the form of road improvement and approximately nine miles of new access road was made by the promoters of the Silver Summit Ski Resort. The request was refused. In view of the fact that the development went ahead, and the relevancy of the question of benefits to the region, an evaluation has been completed. Was the refusal justified?

The study of this matter concentrates on income and employment impacts that have resulted from the operation of the resort in 1969. These factors

were also used to justify the equivalent type of decision to build a campsite in cooperation with the town of Edson and the Edson Lion's Club.¹

Objectives

The objectives of this study were directed three ways; to the design of the evaluation system, to the public impact of the resort, and toward providing information for the resort management.

1. To design and test a data collection method for documenting public economic benefits of private recreation developments.
2. To estimate the origin and levels of public income and employment benefits.
3. To estimate the total revenue for the resort.
4. To provide information on user reaction to the resort and the pattern of visits to the resort for the benefit of the resort managers.

Procedure

Ten randomly selected days between the middle of January and mid April 1969 were chosen with an attempt at balance between weekends and weekdays. Excessively cold weather forced a delay until February 9 and resulted in low weekday attendance. Therefore extra weekend days were substituted to maintain adequate numbers of interviews. An early spring forced the sample back to nine days.

Teams varying from one to three interviewers provided arriving skiers with an IBM card explaining the nature of the survey and the kinds of

¹ See Apedaile, Matthews and Stewin, "Evaluation of the Lion's Tourist Center," unpublished paper, Department of Agricultural Economics and Rural Sociology, December 1970.

information which would be asked of them upon their departure. All skiers on the designated days were interviewed. As they left, their answers to the questions were recorded. Of great importance to the quality of answers was the possible impatience on the part of skiers if their cars were to be delayed upon their exit in the evening. Therefore, effort was made to expedite the interviews. Each interview lasted approximately one minute so that with two interviewers 120 vehicles could be covered within an hour if necessary. The average cost per interview was \$0.58.

A second phase to the study was an Edson business survey. This survey of 18 businesses was designed to document the felt impact of the ski resort on skier oriented business in Edson.

Results of Skier Survey

Over the nine days, 2,467 people were interviewed from 670 vehicles. The sampling unit was the passenger load of the vehicle. Of the total, 195 vehicles came from within the region (670 people) and 476 from outside the region (1,797 people). The average number of people per day was 274 with 27.1 percent from within CD 14 and 72.9 percent from outside CD 14.

Tables 1, 2, and 3 display separate statistics for residents, non residents and all users taken together. All values are on a per day basis. Spending by residents was largely centered at the resort with an average of \$240.19 spent per day ranging from \$550.55 on a March Saturday to \$20.00 per day on an early February Tuesday. The variation is large due to the weather and the day of the week. As the days grew longer and warmer in March attendance generally increased.

Table 1. Summary of expenditure patterns for CD 14 resident patrons of The Silver Summit Ski Resort, February - April 1970.

Statistic	No. of cars	No. of people per expenditure	Place of residence		Record of spending this trip (planned & actual)					No. of days this trip	Is this end of trip? (yes)	No. of times this resort used	
			In CD 14	Outside CD 14	At the resort	Food	Sleeping accommodations	Rentals	Gas and car				Souvenirs and others
Sample size	9	9			9					9	9	9	
Maximum	55	203			559.55					37.00	57	54	304
Minimum	4	3			20					0	2	2	12
Range	51	200			539.55					37.00	55	52	292
Mean	21.7	74.4			240.19					10.31	20	20	141
Median	20	77			246.50						20	19	104
Variance	286	4,094			44,472						290	279	10,235
Standard deviation	16.9	64			210.88						17	17	101
Mean deviation	12.4	46.6			177.31						12	12	82



Table 2. Summary of expenditure patterns for CD 14 non resident patrons of The Silver Summit Ski Resort, February - April 1970.

Statistic	No. of cars	No. of people per expenditure	Place of residence		Record of spending this trip (planned & actual)				No. of days this trip	Is this end of trip? (yes)	No. of times this resort used
			In CD 14	Outside CD 14	At the resort	Food	Sleeping accommodations	Rentals	Gas and car	Souvenirs and others	
Sample size	9	9			9	9	9	9	9	9	9
Maximum	154	653			3,956.70	314.55	110.0		929.81	183	216
Minimum	2	17			171.00	7.00	0		26	7	6
Range	152	636			3,785.70	307.55	110.00		903.81	176	210
Mean	53	199.7			1,409.02	117.99	49.33		312.89	68	97
Median	30	158			997.00	83.00	43.00		243.75	54	102
Variance	2,301.36	40,575.5			1.52x10 ⁶	9,961.	2,207		90,158	3,366	4,736
Standard deviation	48	201.4			1,233.88	99.80	46.98		300.26	58	69
Mean deviation	34	141.8			936.96	80.90	40.81		221.36	43	50

Table 3. Overall summary of expenditure patterns for CD 14 resident and non resident patrons of The Silver Summit Ski Resort, February - April 1969.

Statistic	No. of cars	No. of people per expenditure	Place of residence		Record of spending this trip (planned & actual)					No. of days this trip	Is this end of trip? (yes)	No. of times this resort used
			In CD 14	Outside CD 14	At the resort	Food	Sleeping accommodations	Rentals	Gas and car	Souvenirs and others		
Sample size	9	9	9	9	9	9	9	9	9	9	9	9
Maximum	195	777	55	288	4,414.05	314.55	110		947.06	213	168	478
Minimum	7	21	2	5	196.9	7	0		26	9	6	18
Range	188	756	53	283	4,217.15	307.55	110		921.06	204	162	460
Mean	74.5	274.1	21.2	67.66	1,649.21	120.42	49.33		323.20	88	66	238
Median	74.4	240	20.00	29.00	1,500	83.00	43.00		252.00	71	55	250
Variance	4,033	63,662	300.2	7,660	1.77x10 ⁶	10,262	2,207		92,939	5,078	3,448	21,252
Standard deviation	63.5	252.3	17.3	87.52	1,329.41	101.30	46.98		304.86	71	59	146
Mean deviation	45.8	185	12.7	56.59	923.04	82.71	40.81		222.66	54	43	118

the distribution of weekdays in the survey and the usual two of seven over the season. Six of nine interview days were on weekends.

Another source of difficulty is the lack of information on actual use of the resort. The management always promised the information as well as revenue data to provide an accuracy check of the survey. None was forthcoming despite repeated requests. Until the data on resort use is available the extreme crudeness of projections resulting from variable daily attendance cannot be eliminated.

Table 4. Projected income impact of non resident spending on C.D. 14 from the Silver Summit Ski Resort. Winter 1969^a

	Spending (dollars)	Multiplier ^b	Income Impact (dollars)
Number of non resident users	120		
Off resort spending			
Food	14,139	1.45	20,530
Gas and Car	37,547	1.45	54,443
Accommodation	<u>5,920</u>	1.45	<u>8,584</u>
Sub Total	57,626		83,557
On resort spending	<u>169,082</u>	1.92	<u>324,637</u>
Total Impact	226,708		408,194
5% of Edson retail and Service sales 1969			531,800

^a These projections are extremely crude. They overestimate actual spending both on and off the resort. The standard errors of the means are so large that confidence intervals are too broad to be meaningful.

^b Apedaile, Matthews and Stewin, "Income Multipliers," unpublished paper, Department of Agricultural Economics and Rural Sociology, December 1970.

Results of the Edson Business Survey

Most businesses definitely felt they benefitted from the ski resort (Table 5). Nine of ten service stations acknowledged benefit. The two sporting goods stores, one restaurant, one drive-in and one hotel also benefitted. Only one of three motel operators, however, felt his business had improved. There was considerably less unanimity on the amount of benefit. None of the service stations could provide hard estimates. Only the drive-in, hotel and one motel attempted to estimate the increase in sales. Increases ranged from 30 percent down to 2 percent in the case of the motel (Table 6).

The employment impact was mixed. Three of ten service stations reported hiring six part time employees beginning in January. The other businesses did not increase their employment.¹ All additional employees were local residents paid from \$1.25 to \$1.60 per hour.²

Two businesses reported investment in improvements and expansion over the twelve months prior to the survey. These investments totalled \$25,000 and their relationship to the ski business is tenuous. However, the two investments correspond to the two businesses that estimated significant material benefits from the ski resort (Tables 6 and 9).

Two businesses acknowledged an increase in income tax payments. However, the firm with the largest reported income increase denied any

¹ The drive-in admitted to increases in their staff, but declined to detail the numbers, skills, length of employment and wages of these employees. However, their employees were local residents.

² The actual importance of the ski resort in the decision to expand staff could not be determined. There were from \$170 to over \$900 spent on gas and car per weekend day by non-residents.

Table 5. Survey of Edson Businessness Patronized by Skiers
Question: Do you feel the ski resort helped your business?

Type of Business	Number of Businesses Responding	Answer		
		Yes	No	No Answer
SS - Service Station	10	9	1	--
M - Motel	3	1	2	--
S - Sporting Goods Store (&/or ski shop)	2	1	--	1
R - Restaurent (incl. Cafes & Coffee shops)	1	1	--	--
D - Drive-In Food Outlet	1	1	--	--
H - Hotel	1	1	--	--

Table 6. Survey of Edson Businesses Patronized by Skiers
 Question: How much of your gross income last year came from skiers?

Type of Business	Number of Businesses Responding	Dollars (\$)	Proportion (%)	No Answer
SS - Service Station	10	--	--	10
M - Motel	3	--	2%	2
S - Sporting Goods Store (&/or Ski Shop)	2	--	--	2
R - Restaurant (incl. Cafes & Coffee shop)	1	--	--	1
D - Drive-In Food Outlet	1	--	30%	--
H - Hotel	1	\$4800.00	About 7%	--

Table 7. Survey of Edson Businesses Patronized by Skiers

Question: Did you have to hire any help at any time during the skiing season?

Type of Business	Number of Businesses Responding	Answers		
		Yes	No	No Answer
SS - Service Station	10	3	7	---
M - Motel	3	---	3	---
S - Sporting Goods Store (&/or Ski Shop)	2	---	1	1
R - Restaurant (incl. cafes & Coffee shops)	1	---	1	---
D - Drive-In Food Outlets	1	1	---	---
H - Hotel	1	---	1	---

The nature of additional employment
for the three firms reporting same^a

Type of Business	Employees Skills	Number of Employees	Approximate Years of Experience	Months When Employee Worked	Total Wage Paid Sept 1/67 to Aug. 1/68
SS (a)	Part-time	2	None	Jan. to Sept.	\$1.25 to \$1.60
SS (b)	Part-time	2	None	---	\$1.30
SS (c)	Part-time	2	---	---	\$1.25

^a One Drive-In Food Outlet declined to complete the Survey of Employers form.

Table 8. Survey of Edson Businesses Patronized by Skiers
Question: Do all your extra helpers come from the
 Edson Area?

Type of Business	Number of Businesses Responding	Answers		
		Yes	No	No answer
SS - Service Station	10	3	--	7
M - Motel	3	--	--	3
S - Sporting Goods Store (&/or Ski Shop)	2	--	--	2
R - Restaurant (incl. Cafes & Coffee shop)	1	--	--	1
D - Drive-In Food Outlets	1	1	--	--
H - Hotel	1	--	--	1

Table 9. Survey of Edson Businesses Patronized by Skiers
Question: Did you expand in the last twelve months?

Type of Business	Number of Businesses Responding	Yes	No	Cost (\$)	No Answer
SS - Service Station	10	--	10	--	--
M - Motel	3	--	3	--	--
S - Sporting Goods Store (&/or Ski Shop)	2	--	1	--	1
R - Restaurant (incl. Cafes & Coffee shops)	1	--	1	--	--
D - Drive-In Food Outlet	1	1	--	\$7000.00	--
H - Hotel	1	1	--	\$18000.00	(Improvements)

increase in income tax. This inconsistency could be due to special tax concessions for new businesses, or capital depreciation write-offs balancing increased income or a declination to answer.

In an effort to ascertain the incidence of benefits related to inputs, an experimental question was introduced (Table 10). The question asked for a breakdown of each dollar income according to inputs purchased. Only one service station, the drive-in, and hotel attempted to answer it. Labor and management accounted for between 27 and 50 cents of a dollar income. Material purchases accounted for 25 cents of the service station dollar, 40 cents for the drive-in and 5 cents for the hotel. Overhead for the hotel was 55 cents and for the service station, 15 cents. Property taxes amounted to from 3 to 6 cents on the dollar. The breakdown did not total \$1.00 for the drive-in. However, the 30 cent discrepancy probably belongs to overhead and taxes. These values have no statistical validity whatsoever, and cannot be used for quantitative inference.

Most businesses would like to see more resorts in the area (Table 11). The hotel, sporting goods store and two service stations would not like to see more resorts if they were to interfere with the success of the present resort. Curiously, the drive-in voted against having more resorts in the area.

Conclusions

1. The sporadic nature of answers to the business survey illustrate the continuing problems experienced in obtaining data on behavior of small businesses. They don't know the answers or simply refuse to reveal their information.

Table 10. Survey of Edson Businesses Patronized by Skiers

Type of Business	Number of Responses	Distribution of expenditures for \$1.00 revenue ^a									
		No Answer	Hired Labor	Management	Material		Overhead	Advertising		Taxes	
					In CD 14	Outside CD 14		In CD 14	Outside CD 14	In CD 14	Outside CD 14
SS - Service Station	10	9	50		25		15	2		6	98
D - Drive-In Food Outlets	1	--	20	7		40		3	--	--	70
H - Hotel	1	--	27	4	3	2	55	1	1	3	100

^a The three motels, two sporting goods stores, and the restaurant declined to answer.

Table 11. Survey of Edson Businesses Patronized by Skiers
Question: Would you like more resorts in the area?

Type of Business	Number of Businesses Responding	Conditional Yes	Conditional Yes No	Conditional No No	No Answer
SS - Service Station	10	8	2	--	--
M - Motel	3	2	--	1	--
S - Sporting Goods Store (&/or Ski Shop)	2	--	--	--	1
R - Restaurant (incl. cafes & coffee shop)	1	1	--	--	--
D - Drive-In Food Outlet	1	--	--	1	--
H - Hotel	1	--	--	--	1

Note: A "Conditional Yes" refers to the fact that another resort would be desired if it were of a different type or if it would not interfere with the business of the ski resort (i.e. offer unfair competition before the ski resort is fully established).

A "Conditional No" refers to the same thing as the "Conditional Yes" but from the opposite point of view. That is, no more resorts are desired if they will interfere with the business of the ski resort before it is fully established.

2. The incidence of the impact is on service stations, quick food outlets and then hotels. The impact on hotels is probably through the bar rather than accommodation since the motels either denied benefit or experienced virtually insignificant benefit.

3. Employment impact seems to be on local residents and on the relatively unskilled labor pool.

4. The data on expenditure patterns by businessmen is quantitatively unreliable, though labor materials and overhead are major items. Of these, labor is the only real local input.

5. The ski resort in 1969 probably produced a significant income impact for service stations in Edson, especially those at the east end of town. In the absence of direct data from the resort operators, no conclusion about the full employment or impact is possible.

This study has served most of its purpose in testing a method to obtain income impact data. However, additional attempts will be made to complete the data void from the Resort. As one of a type of investments which may contribute to regional development, the social and psychological measures of impact of the resort should also be estimated. At this juncture, however, developing these measures may require separate major research.

HOME VISITOR PROJECT¹
Attitudinal Considerations and Performance
Interim Report

Victor Matthews, Leonard Apedaile and Leonard Stewin²

December 14, 1970

¹ The research for this paper is under University of Alberta contract number 55-08034 with the Alberta Human Resource Development Authority.

² Victor Matthews is assistant professor, Department of Sociology, Leonard Apedaile is associate professor, Department of Agricultural Economics and Rural Sociology, and Leonard Stewin is assistant professor, Department of Educational Psychology, University of Alberta.

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Introduction

One of the common themes of community development programs is that the instigators of these programs should possess certain attitudinal characteristics which enable them to be suited to this role. This phase of research on the Home Visitors is what is called a clientele study of one explicitive factor of joint relevance to four sybsystems of the evaluation system. These sub-systems are income, employment, achievement motivation and social adjustment. The Home Visitors, as members of the community within which they instigate change, are hypothesized to have the types of attitudes which are related to the role of the instigator. The purpose of this study, then, is to examine certain attitudes of the Home Visitors in relation to their relative success as instigators.

Methodology

Seven attitudinal scales were given to the Home Visitors at Wildwood and Edson in the Spring of 1970. These scales included:

- the Economic Conservatism Scale (Rundquist and Sletto, 1936) which contains twenty-two items.
- the Social Attitude Scale (Kerlinger, 1967) which contains twenty-six items.
- the Public Opinion Questionnaire (Edwards, 1941) which contains twenty-six items.
- the Family Scale (Rundquist and Sletto, 1936) which contains twenty-two items.
- the Acceptance of Self and Others Scale (Berger, 1952) which contains sixty-four items. These items were divided into a Self Scale of twenty-eight items, an Other Scale of twenty-eight items, and a deletion of eight unrelated items.

- the ARDA Scale which contained thirty-five items. This scale was designed to measure attitudes toward both the social action process and public intervention to achieve regional development.

These scales were all of the likert-type and were dispersed throughout a single questionnaire of 185 questions. Likert-type scales are those in which the response to a question or statement is on a continuum from 1 to 5 in the following manner:

You are requested to respond to each statement in the following manner:

<u>Score</u>	<u>Statement about opinions</u>
1	Disagree strongly with opinion
2	Disagree with opinion
3	Undecided about opinion
4	Agree with opinion
5	Agree strongly with opinion

Thus, a score of "4" indicates that you are in agreement with a particular statement.

Upon completion of the questionnaire, the results were coded, and inter-correlated both with the other responses and with the rank of each Home Visitor as supplied by the Edson Staff. This ranking was from 1 to 5; with 1 being the least capable and 5 being the most capable.

Results of Testing

From the 185 questions, 42 were found to be highly associated with the staffs' ranking of the Home Visitors. These 42 inter-relationships were

examined in terms of cross tabulation tables to ascertain both the nature and degree of relationship. Since the concern was to provide a "predictive" instrument of Home Visitor success, and since the first application of the questionnaire was considered to be a pretest, these 42 questions were compiled into a new questionnaire and given to the Home Visitors at Edson, Whitecourt and the surrounding area in December 1970. The second sample constituted 28 Home Visitors whereas the pretest was based only upon twelve. The results of this second questionnaire were disappointing. The majority of the cross tabular presentations indicated that the relationship between Home Visitor ranking and the chosen questions had virtually disappeared. In addition, the predictive index which was developed from the first administration and processing of the questionnaire degenerated from a correlation of .934 (Spearman's rho) which could be interpreted liberally as accounting for 87 percent of the predictability of Home Visitor Ranking from the questionnaire to a correlation of $-.147$ (Spearman's rho) which could account for only about 2 percent of the prediction.

Conclusions

In conclusion, this setback appears to be one of those beautiful theories which is murdered by a gang of brutal facts. The measurement of social attitudes is a difficult task under any circumstances, and the application of such measurement for prediction is the most stringent test of all. It appears that the earlier success in this area was due primarily to the small non-representative sample upon which the trial predictor index was developed. The need for a predictive objective instrument to test Home

Visitor performance remains if this explicative factor is to be evaluated.

Home Visitor type programs, though conceptually still under development appear to offer real possibilities of bringing people together into a community.

This study will be continued as part of a broader attempt to quantify the performance of the Home Visitors Project.

Footnotes

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